| 1 | Steven D. Ellis (Colo. 12255) | |
|----|--|--|
| 2 | steven.ellis@usdoj.gov | |
| | Telephone: (202) 514-3163 Samantha M. Ricci (Cal. 324517) | |
| 3 | Samantha.ricci@usdoj.gov | |
| 4 | Telephone: (202) 514-3856 | |
| 5 | Rachael A. Kamons (M.D. Bar) | |
| 6 | Rachael.kamons@usdoj.gov Tolonhonov (202) 514 5260 | |
| 7 | Telephone: (202) 514-5260 Environmental Enforcement Section | |
| | Environment and Natural Resources Divis | sion |
| 8 | United States Department of Justice | |
| 9 | P.O. Box 7611 Washington, DC 20044 | |
| 10 | Washington, De 20011 | |
| 11 | Attorneys for Plaintiff United States of Ar | nerica |
| 12 | IN THE UNITED STAT | TES DISTRICT COURT |
| 13 | | ICT OF ARIZONA |
| 14 | | LN CN 20 00002 NIN HT |
| 15 | United States of America, | No. CV-20-08003-PHX-JJT |
| 16 | Plaintiff, | DECLARATION IN SUPPORT OF |
| | V. | UNITED STATES' MOTION FOR PRELIMARY INJUNCTION |
| 17 | Gear Box Z, Inc. | RELIWIART INJUNCTION |
| 18 | | |
| 19 | Defendant. | |
| 20 | | |
| 21 | DECLARATION | OF DOCE CALED |
| 22 | DECLARATION | OF ROSE GALER |
| 23 | | |
| | | |
| 24 | | |
| 25 | | |
| 26 | | |
| 27 | | |
| 28 | | |
| I | | |

- I, Rose Galer, declare as follows under penalty of perjury:
- 1. I am currently a Physical Scientist employed by the U.S. Environmental Protection Agency Region 9 ("EPA Region 9"), Enforcement and Compliance Assurance Division. I have been with EPA Region 9's Enforcement and Compliance Assurance Division since August 2016.
- 2. EPA Region 9 is the regional office of EPA that implements and enforces federal environmental laws in California, Arizona, Nevada, Hawaii, the Pacific Islands, and 148 tribal nations. EPA Region 9 is headquartered in San Francisco, California.
- 3. Since August 2016, I have been a scientist in the Air Section of EPA Region 9's Enforcement and Compliance Assurance Division. My responsibilities include compliance inspections, investigations, and case development.
- 4. As part of my duties as a scientist in the Air Section, I am responsible for investigating potential enforcement actions and supporting enforcement actions brought by EPA Region 9 for violations of the Clean Air Act ("CAA") and its implementing regulations. My cases include enforcement of the defeat device prohibition under Section 203(a)(3) of the CAA.
- 5. I am the Region 9 lead scientist in this investigation. My duties consist of identifying potential violations, drafting and reviewing information requests, reviewing and analyzing case files, calculating emission increases based on information obtained from the person or company we are investigating, and

calculating penalties according to EPA policy and guidance. I have conducted other aftermarket defeat device investigations and assisted other EPA Region 9 environmental scientists and engineers with the same.

- 6. Mobile sources are regulated under the CAA in order to protect human health and the environment by reducing harmful emissions of nitrogen oxides ("NOx"), particulate matter ("PM"), carbon monoxide ("CO"), and other types of air pollution.
- 7. The CAA has specific compliance provisions which establish emission standards and test procedures for each vehicle or engine type and year of manufacture. 40 C.F.R. Part 86 (emission standards for parts and components for diesel trucks). In order to ensure emission standards are met, EPA administers a certification program for every vehicle sold in the United States. Vehicle manufactures must obtain a certificate of conformity ("COC") from EPA demonstrating the vehicles have emission controls that meet emission standards. 40 C.F.R. § 86.2843-01. Motor vehicle and engine manufacturers employ many devices and elements of design in order to meet emission standards. An "element of design" means "any control system (i.e., computer software, electronic control system, emission control system, computer logic), and/or control system calibrations, and/or the results of system interaction, and/or hardware items on a motor vehicle or motor vehicle engine." 40 C.F.R. § 86.094-2. Vehicles are programmed with Certified Stock Calibrations, which is the vehicle software

designed by the vehicle manufacturers that performs necessary software emission control functions. Manufacturers also employ hardware devices as emission control systems to manage and treat exhaust to reduce levels of regulated pollutants from being created or emitted into the ambient air.

- 8. For diesel trucks, emission control hardware devices include diesel particulate filters ("DPF"), exhaust gas recirculation ("EGR") systems, diesel oxidation catalysts ("DOC"), nitrogen oxide adsorbing catalysts ("NAC"), and selective catalytic reduction ("SCR") systems. Manufacturers equip vehicles with electronic control modules ("ECMs") to govern parameters that affect engine combustion, performance, and operation (e.g., air-fuel ratio, fuel injection timing, fuel quantity, fuel injection pressure, and fuel injection pulse width and temperature), to monitor and control the emission control devices and onboard diagnostics ("OBD"), to detect problems with emissions related systems, alert drivers to these problems, and store electronically generated malfunction information. When a problem is detected, the OBD will illuminate a warning lamp on the vehicle instrument panel and may force the engine to derate and enter "limp-home mode." These parts and functions are part of a vehicle's emission control system.
- 9. The manufacture, sale, or offer to sell parts or components with a principle effect to bypass, defeat, or render inoperative any device or element of design installed on a motor vehicle is a violation of Section 203(a)(3) the CAA.

These parts are commonly referred to as aftermarket "defeat devices," which include hardware and software defeat devices. Hardware defeat devices bypass or remove the hardware emission controls and software defeat devices reprogram or override the related software emission control programming (tunes) using a device called a "tuner" with preloaded tunes.

A. Gear Box Z – Aftermarket Defeat Device Business

- 10. Gear Box Z, Inc. ("GBZ") is a small business that manufactures and sells aftermarket defeat device products for diesel trucks to wholesalers, distributors, retailers, and directly to end-users. GBZ primarily operates online through its website www.gearboxz.com, where it sells GBZ products and other brands of aftermarket products. GBZ also sells through third-party online retailers, such as Amazon and eBay.
- products on GBZ's website that appeared to be aftermarket defeat devices. GBZ's website contained both hardware and software aftermarket defeat device products that were marketed and advertised for purposes of enhancing vehicle performance, such as power and increased fuel economy. EPA further identified GBZ's products to be defeat devices after reviewing other aftermarket retailers' websites that sold the same defeat devices GBZ offered for sale. For example, the install instructions for an AFE straight pipe GBZ and AFE offered for sale explicitly discuss the removal of emission controls such as "remove the stock exhaust" and

"disconnect sensors at the connection." Additionally, EPA discovered other online sources of evidence suggesting that GBZ products were defeat devices such as publicly available videos on YouTube and postings on Facebook providing video tutorials for GBZ products.

B. CAA Section 208 Information Requests

- 12. EPA Region 9 issues information requests under Section 208 of the CAA to, among other things, investigate whether a company may be in violation of any requirement of the CAA and its implementing regulations. EPA Region 9 routinely sends Section 208 information requests to companies subject to the CAA's requirements.
- 13. Manufacturers and sellers of aftermarket defeat devices are subject to the CAA and to Section 208 of the CAA.
- 14. On April 24, 2017, EPA Region 9 issued a request for information under Section 208 of the CAA to GBZ ("Information Request"). The Information Request sought information relating to GBZ's manufacture and sales of aftermarket defeat devices to determine its compliance with the CAA. A true and correct copy of the Information Request is Exhibit A to my declaration.
- 15. In its response to EPA's Information Request and EPA's follow-up questions related to its responses, GBZ provided product descriptions and information, installation instructions, and sales data for certain products sold between January 1, 2015, and April 24, 2017. GBZ admitted that all of the

exhaust system components sold during this time "enables removal of an emission related part," identifying 866 block plates that enable the removal of the EGR and 129 exhaust replacement pipes that enable the removal of the DPF and/or DOC. See Table 1 of Ex. B. Additionally, GBZ admitted that of its EM products (i.e., tuners) it sold 656 units of the "Dodge 3.0 (GBZ-DD30)," which disables or renders inoperative the DPF, and sold 7,329 tuners that came with "Maintenance Mode" which enables removal of DPF, EGR, and SCR. See Table 2 of Ex. B. GBZ identified "Maintenance Mode" as an "Add-On for all OBD Products;" however, the total units GBZ sold of "Maintenance Mode" was the same number of the total units of all its tuners sold, creating a reasonable assumption that "Maintenance Mode" was included in all of the tuners GBZ sold. A true and correct copy of EPA's follow-up questions related to GBZ's initial response are Exhibit C and Exhibit E to my declaration. A true and correct copy of the documents provided by GBZ in response to our request and follow-up questions are Exhibit B, Exhibit D, and Exhibit F to my declaration.

16. Based on the information provided by GBZ in response to EPA's Information Request, EPA has determined that between January 1, 2015, and April 24, 2017, GBZ manufactured and/ or sold at least 8,323 aftermarket defeat devices. GBZ's defeat device products include: exhaust replacement pipes, EGR block plates, DPF emulators, and tunes contained in handheld tuners. These categories work in different ways with the primary effect of disabling or removing

emission controls on motor vehicles. EGR block plates defeat emission controls by physically removing or bypassing the EGR system. Exhaust replacement pipes are hardware that replace all or part of the exhaust system with a "straight pipe" that does not contain emission control hardware. DPF Emulators imitate signals to trick the internal diagnostic system in the vehicle, the OBD, from detecting that the DPF filter was removed or otherwise defeated. The tuners contain software (tunes) that function in two ways: enabling the removal of emission control hardware by bypassing software systems that routinely confirm its proper operation, and by modifying Certified Stock Calibrations to change the engine behavior.

- 17. The use of these products results in a significant increase in NO_X emissions, which contribute to the formation of ozone or ground level ozone. The use of these products also results in a significant increase of PM emissions. Both ozone and PM are known to cause deleterious effects to human health and the environment.
- 18. EPA also determined that a number of GBZ's responses to information requests were incomplete and inadequate. For example, GBZ failed to answer questions related to the functionality of "maintenance mode." In supplemental information requests, EPA requested a description of maintenance mode. GBZ responded by providing the user manual for the EM1.0 programmer instead of a description of "maintenance mode." A true and correct copy of EPA's

subsequent request for information related to maintenance mode is Exhibit E to my declaration. A true and correct copy of the documents provided by GBZ in response to our request and follow-up questions is Exhibit F to my declaration.

- 19. All of the defeat device products GBZ manufactures and offers for sale are designed and marketed for use on specific makes and models of Fiat Chrysler Automobiles ("FCA"), General Motors ("GM"), or Ford motor vehicles or engines. All three of these companies sought and obtained COCs from the EPA for these motor vehicles or engines. These certifications unequivocally demonstrate that these vehicles and engines are "motor vehicles" and "motor vehicle engines" under the CAA.
- 20. At all relevant times, each of these products GBZ manufactures, offers for sale, and sells are "defeat devices" with a principle effect of bypassing, defeating, or rendering inoperative emission controls on or in motor vehicles, within the meaning of the CAA. These products are identified in Attachment A "GBZ Defeat Device Product List."

C. CAA Section 203 Notice of Violation

- 21. Although not required under Title II of the CAA, EPA Region 9 often issues notices of violation ("NOV") to notify companies that EPA has found violations of the CAA and provides the company an opportunity to confer with EPA concerning the alleged violations.
 - 22. Since I have been with EPA Region 9, I have assisted with the

issuance of six aftermarket defeat device NOVs.

- 23. In response to these six NOVs, companies typically requested an opportunity to confer with EPA to discuss the allegations in the NOVs. Such conferences are referred to as NOV conferences.
- 24. Typical topics of discussion during NOV conferences include the allegations in the NOV and potential paths towards resolution of the alleged violations.
- 25. On December 22, 2017, EPA issued an NOV to GBZ ("GBZ NOV") alleging the violations of Section 203(a)(3)(B) of the CAA for the manufacture, sale, and offer for sale of three main categories of defeat device products: exhaust replacement pipes, EGR block plates, and tuners. The NOV covers 129 exhaust replacement pipes, 866 EGR block plates, and 656 tuners.
- 26. Notably, the 656 tuners addressed in the NOV are products GBZ admitted had delete capabilities, as they were packaged with DPF emulators. GBZ sold at least 6,672 additional tuners that were equipped with Maintenance Mode and were advertised for "temporary DPF maintenance" or use with a "racing exhaust kit." These tuners were not included in the NOV because GBZ provided EPA with conflicting statements regarding these products' capabilities. However, during early stages of settlement negotiations EPA informed GBZ that it believes these tuners are defeat devices based on their ability to interfere with OBD systems. Furthermore, the CAA does not require the issuance of an NOV prior to

an enforcement action for violations of Section 203(a)(3)(B),

D. NOV and Potential Settlement Discussions

- 27. On January 10, 2018, GBZ's counsel, Mathew Barlow of The Barlow Law Firm LLC, held a teleconference with Ryan Bickmore, the lead EPA Region 9 case attorney assigned to this matter, to discuss the allegations in the NOV and to inquire about GBZ's interest in potentially discussing a settlement.
- 28. On October 11, 2018, EPA participated in a teleconference with GBZ to discuss potential settlement terms. Present for the teleconference was GBZ's counsel, Jerry Black (GBZ's owner), and representatives from EPA (Rose Galer and Ryan Bickmore). EPA made an offer to settle the matter.
- 29. In late October, 2018, GBZ responded to EPA's settlement offer declining to settle the matter.
- 30. Gear Box Z has continued to sell products since the issuance of the NOV, including a "Spring Sale" and "Summer Sale" during each season on its website for 20% off of all its products (nearly all of which are defeat devices). This "Summer Sale" promotion was on Gear Box Z's website as recently as August 19, 2020.

E. Documents

31. True and correct copies of the following documents that I am personally familiar with are being filed with my Declaration as Exhibits A through G in support of the United States' motion for preliminary injunction:

EXHIBIT A



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION IX

APR 2 4 2017

75 Hawthorne Street San Francisco, CA 94105-3901

Certified Mail 7016 1370 0000 2235 2081

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

IN THE MATTER OF: GEAR BOX Z, INC.

Gear Box Z, Inc. 55 North Pioneer St. #2246 Colorado City, AZ 86021

ATTENTION: Jerry Black

Request for Information Under § 208(a) of the Clean Air Act, 42 U.S.C. § 7542(a)

The United States Environmental Protection Agency (EPA) hereby requires Gear Box Z, Inc. (Gear Box Z) to submit certain information as part of an EPA investigation to determine Gear Box Z's compliance with Section 203 of the Clean Air Act (CAA), 42 U.S.C. § 7522, and the applicable regulations at 40 C.F.R. Parts 85, 86, 1037, and 1068. Examples of vehicles regulated under these Parts include, but are not limited to, light and heavy-duty trucks. Appendix A provides definitions for some of the terms used in this request, Appendix B provides instructions for your responses to this request, and Appendix C specifies the information that you must submit.

The EPA is issuing this Request for Information under Section 208(a) of the CAA, 42 U.S.C. § 7542(a). Under Section 208(a), the Administrator of the EPA may require any person who is subject to the CAA to provide information necessary to determine whether the person has acted in compliance with these requirements and the regulations promulgated thereunder. The Administrator has delegated this authority to the undersigned Director of the Air Enforcement Division, Office of Enforcement and Compliance Assurance.

You must submit responses to this Request for Information within thirty (30) calendar days from the date you receive this letter. Please carefully review the instructions, definitions, and specific requests as you prepare your response. If you anticipate being unable to fully respond to this Request for Information by this date, you must contact Rose Galer at (415) 947-4289 within 15 days of the date you receive this letter and, with an appropriate justification, request an extension of time to answer some or all of the requests. If timely submitted, the EPA will review your extension request and may extend the time in which your response must be provided.

Failure to provide the required information may result in the initiation of a civil action pursuant to Section 205(b) of the CAA, 42 U.S.C. § 7524(b). Failure to provide all requested information in its

entirety, and in the format requested, may result in additional inquiries and penalties. It is important that your responses be clear, accurate, organized, and complete. We will regard submitted information that is misleading, false, incomplete, or submitted without regard to its accuracy as a violation of the CAA and/or criminal statutes. We may use any information submitted in response to this Request for Information in an administrative, civil, or criminal action.

We would like to take this opportunity to advise you may qualify as a "small business" under the Small Business Regulatory Enforcement and Fairness Act (SBREFA). Please review the enclosed SBREFA Information Sheet, which is designed to provide information on compliance assistance to entities that may qualify as small businesses as well as to inform them of their right to comment to the SBREFA Ombudsman concerning EPA's enforcement activities. Please be aware that SBREFA does not eliminate Gear Box Z's responsibility to respond in a timely fashion to any complaint or information request that EPA may issue or other enforcement action that EPA may take, nor does SBREFA create any new rights or defenses under the law other than the right to comment to the SBREFA Ombudsman.

Finally, you must submit all requested information under an authorized signature with the following certification (provided in Appendix D):

I certify under penalty of law that I have examined and am familiar with the information in the enclosed documents, including all attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are, to the best of my knowledge and belief, true and complete. I am aware that there are significant penalties for knowingly submitting false statements and information, including the possibility of fines or imprisonment pursuant to Section 113(c)(2) of the Clean Air Act, 42 U.S.C. § 7413(c)(2), and 18 U.S.C. §§ 1001 and 1341.

You are entitled to assert a business confidentiality claim covering all or part of the information you submit in response to this Request for Information, in accordance with the procedures described in the Confidentiality of Business Information ("CBI") regulations, 40 C.F.R. Part 2, Subpart B. However, no CBI claim may be made with respect to emissions data as defined at 40 C.F.R. § 2.301(a)(2). You must specify the page, paragraph and sentence when identifying the information subject to your CBI claim. Appendix E of this Request for Information specifies the assertion and substantiation requirements for business confidentiality claims. The EPA may, without further notice, provide the public with any information not subject to a CBI claim.

Please submit all requested information, via electronic mail or express delivery, to: Matt Salazar, Manager, Air Enforcement Office

Enforcement Division
Attn: Rosc Galer, Environmental Protection Specialist
U.S. Environmental Protection Agency, Region IX
75 Hawthorne St. (ENF-2-1)
San Francisco, CA 94105

Any questions concerning this Request for Information should be directed to Rose Galer at 415-947-4289 or <u>Galer.Rose@epa.gov</u> or have your attorney contact Ryan Bickmore in the Office of Regional Counsel at 415-972-3058 or <u>Bickmore.Ryan@epa.gov</u>.

Matt Salazar

Manager, Air Enforcement Office

United States Environmental Protection Agency

Region 9

Appendix A

Definitions

- All terms used in this Request for Information will have their ordinary meaning unless such terms are defined in the CAA, 42 U.S.C. §§ 7401 et seq., or the Motor Vehicle Regulations found at 40 C.F.R. Parts 85, 86, 1037, and 1068.
- 2. The terms "affiliate" or "affiliated" are used to indicate a relationship to a specified person, and mean any person that, directly or indirectly or through one or more intermediaries, owns or controls, is owned or controlled by, or is under common ownership or control with such person (other than entities serving solely as customs brokers).
- 3. The terms "document" and "documents" means any object that records, stores, or presents information, and includes, without limitation, email, writings, memoranda, contracts, agreements, records, or information of any kind, formal or informal, whether wholly or partially handwritten or typed, whether in computer format, memory, or storage device, or in hardcopy, including any form or format of these. If in computer format or memory, each such document shall be provided in translation to a form useable and readable by EPA, with all necessary documentation and support. All documents in hard copy shall also include attachments to or enclosures with any document.
- 4. The term "electronic control module" or "ECM" means a device that receives inputs from various sensors and outputs signals to control engine, vehicle, or equipment functions. The ECM uses software programming including calculations and tables of information to provide the appropriate outputs. ECM can be a generic term but may refer specifically to the engine control module when discussing emission controls on vehicles and engines. Other ECMs may be incorporated separately with multiple units used to control various engine, vehicle, or equipment functions. Examples of electronic control modules include, but are not limited to, Engine Control Module, OBD Control Modules, Powertrain Control Module (PCM), Transmission Control Module (TCM), Body Control Module (BCM) and after treatment control module. Any or all of these modules may be combined into a single unit.
- 5. The term "Emission Related Parts" means those parts installed for the specific purpose of controlling emissions or those components, systems, or elements of design which must function properly to assure continued vehicle emission compliance as defined in 40 C.F.R. § 85.2102 (including but not limited to a catalytic converter, a turbocharger, an exhaust gas recirculation, a diesel particulate filter, a secondary catalytic reactor, a fuel injector, a selective catalytic reduction, onboard diagnostics, and electronic control).

- 6. The term "exhaust gas recirculation" or "EGR" includes systems which redirect, usually by use of an EGR valve, a portion of engine exhaust back into the engine's combustion chamber to cool and reduce peak combustion temperatures and pressures, thereby reducing the production of nitrogen oxide (NO_x). The EGR system may include an EGR cooler to cool the recirculated exhaust to further reduce the combustion temperature.
- 7. The term "onboard diagnostics" or "OBD" includes systems which monitor components that can affect the emission performance of the vehicle to ensure that the vehicle remains as clean as possible over its entire life, and assists repair technicians in diagnosing and fixing problems with the computerized engine controls. If a problem is detected, the OBD system illuminates a warning lamp on the vehicle instrument panel to alert the driver.
- The term "person" includes an individual, corporation, partnership, limited liability
 company, sole proprietorship, joint venture, or any formal or informal entity, organization
 or association.
- 9. The term "selective catalytic reduction" or "SCR" includes systems which inject a reductant, such as diesel exhaust fluid (DEF), into the exhaust stream where it reacts with a catalyst to convert NO_x to nitrogen gas (N₂) and water (H₂O).
- 10. The terms "you", "your", and "Gear Box Z" includes Gear Box Z, Inc. and any affiliates, predecessors, successors, and assigns.

Appendix C

Request for Information

Gear Box Z must submit the following information to the United States Environmental Protection Agency pursuant to Section 208 of the CAA, 42 U.S.C. § 7542, regarding the sale or offering for sale of certain parts and products.

- The enclosed Table 1 identifies each exhaust system or exhaust system component (collectively "component") currently offered for sale on Gear Box Z's website at www.gearboxz.com. Please complete the table by filling in the missing information. Specifically, as shown in the table, for each component Gear Box Z must:
 - Indicate whether the component enables removal of an Emission Related Part (e.g., by removing the DPF or SCR or bypassing the EGR);
 - If so, identify which Emission Related Part(s) (e.g., DPF, SCR, EGR);
 - Identify the quantity that was sold by Gear Box Z to consumers with shipping addresses in the United States from January 1, 2015 through the date of this letter; and
 - Identify the quantity that was sold by Gear Box Z to wholesalers, distributors, or authorized dealers from January 1, 2015 through the date of this letter.
- 2. For each component identified in Table 1, provide the following:
 - a. Indicate the vehicle applications by make, model, and year.
 - Describe the function of the component and identify whether and how the component enables removal of an Emission Related Part.
 - Provide copies of the technical specifications, installation and operating instructions, and warranty information.
 - d. Indicate whether the component is described by Gear Box Z in any documentation, marketing materials, advertisements, websites, or other media with the following statement or similar language:
 - "Legal for racing vehicles only which may never be used on a highway"
 - · "Never to be used on a highway"

- · "Off-highway racing use only"
- "Off-road use only"
- · "Race use only"
- "Not for sale in California"
- · "Not legal in the state of California"

Provide references to all materials containing such statements.

- e. If Gear Box Z has recommended that the component be used for testing, maintenance, racing, or off-road only, describe the mechanisms, if any, that Gear Box Z has implemented to ensure that the component is only used for such purposes.
- f. Provide copies of receipts for the total quantity of each component sold by Gear Box Z to consumers with shipping addresses in the United States during since January 1, 2015 through the date of this letter.
- g. Provide copies of invoices or receipts for each component sold by Gear Box Z to all wholesalers, distributors, or authorized dealers during from January 1, 2015 through the date of this letter.
- h. Identify the name, address, contact person, and phone number of each wholesaler, distributor, and authorized dealer for which Gear Box Z provides an invoice or receipt in response to Question 2.g. For each entity identified, also identify the brand name under which each component is or has been marketed.
- 3. Provide the name and address of each location where any of the components identified in Table 1 have been or currently are being stored or offered for sale by Gear Box Z.
- 4. Indicate whether, since January 1, 2015, Gear Box Z has sold or offer for sale any exhaust system or exhaust system component not identified in Table 1. If so, provide a list of each component and indicate whether the component removes or enables removal of an Emission Related Part.
- 5. The enclosed Table 2 identifies each programmer, module, tuner, ECM calibration tool, flash tool, or engine management products (collectively "EM products") currently offered for sale on Gear Box Z's website at www.gearboxz.com. Please complete the table by filling in the missing information. Specifically, as shown in the table, for each EM product Gear Box Z must:
 - Indicate whether the EM product: (1) disables or renders inoperative an Emission Related Part, or (2) reads, clears, or prevents the occurrence of vehicle diagnostic

trouble codes, or uses any other means to interfere with the proper functioning of the vehicle's OBD system to detect and report a malfunctioning, non-functioning, or missing Emission Related Part;

- If so, identify which Emission Related Part(s) the EM product affects (e.g., DPF, SCR, EGR);
- Identify the quantity that was sold by Gear Box Z to consumers with shipping addresses in the United States from January 1, 2015 through the date of this letter; and
- Identify the quantity that was sold by Gear Box Z to wholesalers, distributors, or authorized dealers from January 1, 2015 through the date of this letter.
- 6. For each EM product identified in Table 2:
 - a. Indicate the vehicle applications by make, model, and year.
 - b. Describe what the EM product does and how it functions or operates, including how the EM product bypasses Emission Related Parts or facilitates the operation of the vehicle with an Emission Related Part missing,
 - c. Indicate whether the EM product is capable of bypassing or rendering inoperative any Emission Related Part without the use of additional equipment (e.g., the exhaust components identified in Table 1).
 - d. Provide copies of the technical specifications, installation and operating instructions, and warranty information.
 - e. Provide digital copies of all tune files (stock or custom) made available or installed through your tuning instruments or devices in a format which is readable without proprietary software. If there is no format which exists without use of such software – please provide the software needed.
 - Provide a narrative explanation for the intended application for all tune files provided in response to Question 6.e.
 - g. Describe the purpose and function of the following "add-ons" or "modes" offered by Gear Box Z:
 - Maintenance Mode or DPF-R

- Plus Tune
- · Tachyon Tune
- · Gauges and Monitoring System
- h. Indicate whether the component is described by Gear Box Z in any documentation, marketing materials, advertisements, websites, or other media with the following statement or similar language:
 - "Legal for off-road or racing use only."

Provide references to all materials containing such statements.

- If Gear Box Z has recommended that the EM product be used for testing, maintenance, racing, or off-road only, describe the mechanisms, if any, that Gear Box Z has implemented to ensure that the EM product is only used for such purposes.
- j. Provide copies of receipts for each EM product sold by Gear Box Z to consumers with shipping addresses in the United States during since January 1, 2015 through the date of this letter.
- k. Provide copies of invoices or receipts for each EM product sold by Gear Box Z to all wholesalers, distributors, or authorized dealers during from January 1, 2015 through the date of this letter.
- Identify the name, address, contact person, and phone number of each wholesaler, distributor, and authorized dealer for which Gear Box Z provides an invoice or receipt in response to Question 6.k. For each entity identified, also identify the brand name under which each component is or has been marketed.
- Provide the name and address of each location where any of the EM products identified in Table 2 have been or currently are being stored or offered for sale by Gear Box Z.
- 8. Indicate whether, since January 1, 2015, Gear Box Z has sold or offered for sale any EM products not identified in Table 2. If so, provide a list of each product and indicate whether the EM product (1) disables or renders inoperative an Emission Related Part, or (2) reads, clears, or prevents the occurrence of vehicle diagnostic trouble codes, or uses any other means to interfere with the proper functioning of the vehicle's OBD system to detect and report a malfunctioning, non-functioning, or missing Emission Related Part.
- 9. Provide a list of all persons (as defined in Appendix A) that are affiliated with Gear Box Z. Describe the business relationships with these persons.

- 10. Provide a copy of your articles of incorporation and by-laws.
- 11. Identify your current net worth and annual revenue for the past calendar or fiscal year.
- 12. Identify each person responsible for responding to this Request for Information, including their title, and the request(s) to which they responded.

EXHIBIT B



HC 65 Box 537 3285 S. Hwy 389, #101 Fredonia, AZ 86022 (602) 461-8863 matt@barlowlawgroup.com

June 30, 2107

VIA CERTIFIED MAIL

Matt Salazar, Manager, Air Enforcement Office Enforcement Division Attn: Rose Galer, Environmental Protection Specialist U.S. Environmental Protection Agency, Region IX 75 Hawthorne St. (ENF-2-1) San Francisco, CA 94105

Re: IN THE MATTER OF GEAR BOX Z, INC.
Response to Request for Information.

Rose Galer:

Please see the following responses to each question:

- 1. The enclosed Table 1 identifies each exhaust system or exhaust system component (collectively "component") currently offered for sale on Gear Box Z's website at www.gearboxz.com. Please complete the table by filling in the missing information. Specifically, as shown in the table, for each component Gear Box Z must:
 - Indicate whether the component enables removal of an Emission Related Part (e.g., by removing the DPF or SCR or bypassing the EFR);
 - If so, identify which Emission Related Part(s) (e.g., DFT, SCR, EGR):
 - Identify the quantity that was sold by Gear Box Z to consumers with shipping addresses in the United States from January 1, 2015 through the date of this letter; and
 - Identify the quantity that was sold by Gear Box Z to wholesalers, distributors, or authorized dealers from January 1, 2015 through the date of this letter.

RESPONSE: See attachment marked "Table 1 Response."

2. For each component identified in the Table 1, provide the following:

a. Indicate the vehicle applications by make, model, and year.

RESPONSE: See attachment marked "Product Information."

b. Describe the function of the component and identify whether and how the component enables removal of an Emission Related Part.

RESPONSE: See attachment marked "Product Information,"

c. Provide copies of the technical specifications, installation and operating instructions, and warranty information.

RESPONSE: See attachment marked "Installation Instructions."

- d. Indicate whether the component is described by Gear Box Z in any documentation, marketing materials, advertisements, websites, or other media with the following statement or similar language:
 - "Legal for racing vehicles only which may never be used on a highway"
 - "Never to be used on a highway"
 - · "Off-highway racing use only"
 - "Off-road use only"
 - · "Race use only"
 - "Not for sale in California"
 - "Not legal in the state of California"

Provide references to all materials containing such statements.

RESPONSE: See attachments marked "Product Information and Installation Instructions."

e. If Gear Box Z has recommended that the component be used for testing, maintenance, racing, or off-road only, describe the mechanisms, if any, that Gear Box Z has implemented to ensure that the component is only used for such purposes.

RESPONSE: See attachments marked "Product Information and Installation Instructions."

f. Provide copies of receipts for the total quantity of each component sold by Gear Box Z to consumers with shipping addresses in the United States during since January 1, 2015 through the date of this letter.

RESPONSE: Gear Box Z sells each component online and does not maintain nor generate tangible copies of receipts with customer information. All sales to customers are

online customers with United States shipping addresses.

g. Provide copies of invoices or receipts for each component sold by Gear Box Z to all wholesalers, distributors, or authorized dealers from January 1, 2015 through the date of this letter.

RESPONSE: Gear Box Z is unable to respond to this request. Gear Box Z does not categorize its customers into wholesalers, distributors or authorized dealers.

h. Identify the name, address, contact person, and phone number of each wholesaler, distributor, and authorized dealer for which Gear Box Z provides an invoice or receipt in response to Question 2.g. For each entity identified, also identify the brand name under which each component is or has been marketed.

RESPONSE: See response to Question 2.g. The response to the second portion of Question H, please see attachment marked "Product Information."

3. Provide the name and address of each location where any of the components identified in Table 1 have been or currently are being stored or offered for sale by Gear Box Z.

RESPONSE: Gear Box Z, Inc. 55 North Pioneer St. #2246 Colorado City, AZ 86021

4. Indicate whether, since January 1, 2015, Gear Box Z has sold or offer for sale any exhaust system or exhaust system component not identified in Table 1. If so, provide a list of each component and indicate whether the component removes or enables removal of an Emission Related Part.

RESPONSE: Gear Box Z has not sold nor has offered to sell any exhaust system or exhaust system component not identified in Table 1.

- 5. The enclosed Table 2 identifies each programmer, module, tuner, ECM, calibration tool, flash tool, or engine management products (collectively "EM products") currently offered for sale on Gear Box Z's website at www.gearboxz.com. Please complete the table by filling in the missing information. Specifically, as shown in the table, for each EM product Gear Box Z must:
 - Indicate whether the EM product: (1) disables or renders inoperative an Emission Related Part, or (2) reads, clears, or prevents the occurrence of vehicle diagnostic trouble codes, or uses any other means to interfere with the proper functioning of the vehicle's OBD system to detect and report a malfunctioning, non-functioning, or missing Emission Related Part;
 - If so, identify which Emission Related Part(s) the EM product affects (e.g., DPF, SCR, EGR);

- Identify the quantity that was sold by Gear Box Z to consumers with shipping addresses in the United States from January 1, 2015 through the date of this letter; and
- Identify the quantity that was sold by Gear Box Z to wholesalers, distributors, or authorized dealers from January 1, 2015 through the date of this letter.

RESPONSE: See attachment marked "Table 2 Response."

- 6. For each EM product identified in Table 2:
 - a. Indicate the vehicle applications by make, model, and year.

RESPONSE: See attachment marked "Product Information."

b. Describe what the EM product does and how it functions or operates, including how the EM product bypasses Emission Related Parts or facilitates the operations of the vehicle with an Emission Related Part missing.

RESPONSE: See attachments marked "Product Information and Installation Instructions."

e. Indicate whether the EM product is capable of bypassing or rendering inoperative any Emission Related Part without the use of additional equipment (e.g., the exhaust components identified in Table 1).

RESPONSE: EM products are not capable of bypassing or rendering inoperative any Emission Related Part without the use of additional equipment

d. Provide copies of the technical specifications, installation and operating instructions, and warranty information.

RESPONSE: See attachment marked "Installation Instructions."

e. Provide digital copies of all tune files (stock or custom) made available or installed through your tuning instruments or devices in a format which is readable without proprietary software. If there is no format which exists without use of such software—please provide the software needed.

RESPONSE: Gear Box Z is unable to respond to this request for several reasons. First, the question is drafted in such a way that it does not convey exactly what information is being requested. Second, if Gear Box Z is required to answer this request, it calls for the production of tune files that are within the possession, custody and control of third parties.

f. Provide a narrative explanation for the intended application for all tune files provided

in response to Question 6.e.

RESPONSE: Gear Box Z is unable to respond to this request. Please see response to Question 6.e.

- g. Describe the purpose and function of the following "add-ons" or "modes" offered by Gear Box Z:
 - Maintenance Mode or DPF-R
 - Plus Tune
 - Tachyon Tune
 - Gauges and Monitoring System

RESPONSE: See attachments marked "Product Information and Installation Instructions."

- h. Indicate whether the component is described by Gear Box Z in any documentation, marketing materials, advertisements, websites, or other media with the following statement or similar language;
 - "Legal for off-road or racing use only."

 Provide references to all materials containing such statement.

RESPONSE: See attachments marked "Product Information and Installation Instructions."

i. If Gear Box Z has recommended that the EM product be used for testing, maintenance, racing, or off-road only, describe the mechanisms, if any, that Gear Box Z has implemented to ensure that the EM product is only used for such purposes.

RESPONSE: See attachments marked "Product Information and Installation Instructions."

j. Provide copies of receipts for each EM product sold by Gear Box Z to consumers with shipping addresses in the United States during since January 1, 2015 through the date of this letter.

RESPONSE: Gear Box Z sells each EM product online and does not maintain nor generate tangible copies of receipts with customer information. All sales to customers are online customers with United States shipping addresses.

k. Provide copies of invoices or receipts for each EM product sold by Gear Box Z to all wholesalers, distributors, or authorized dealers during from January 1, 2015 through the date of this letter.

RESPONSE: Gear Box Z is unable to respond to this request. Gear Box Z does not

categorize its customers into wholesalers, distributors or authorized dealers.

 Identify the name, address, contact person, and phone number of each wholesaler, distributor, and authorized dealer for which Gear Box Z provides an invoice or receipt in response to Question 6.k. For each entity identified, also identify the brand name under which each component is or has been marketed.

RESPONSE: See response to Question 6.k. The response to the second portion of Question H, please see attachment marked "Product Information."

7. Provide the name and address of each location where any of the EM products identified in Table 2 have been or currently are being stored or offered for sale by Gear Box Z.

RESPONSE: Gear Box Z, Inc.

55 North Pioneer St. #2246 Colorado City, AZ 86021

8. Indicate whether, since January 1, 2015, Gear Box Z has sold or offered for sale any EM products not identified in Table 2. If so, provide a list of each product and indicate whether the EM product (1) disables or renders inoperative an Emission Related Part, or (2) reads, clears, or prevents the occurrence of vehicle diagnostic trouble codes, or uses any other means to interfere with the proper functioning of the vehicle's OBD system to detect and report a malfunctioning, non-functioning, or missing Emission Related Part.

RESPONSE: Gear Box Z has not sold nor has offered to sell any EM product not identified in Table 2.

9. Provide a list of all persons (as defined in Appendix A) that are affiliated with Gear Box Z. Describe the business relationships with these persons.

RESPONSE: See attachment marked "Articles of Incorporation."

10. Provide a copy of your articles of incorporation and by-laws.

RESPONSE: See attachment marked "Articles of Incorporation."

11. Identify your current net worth and annual revenue for the past calendar or fiscal year.

RESPONSE: 2016 Net Worth: \$187,059; 2016 Revenue: \$2,028,295.

12. Identify each person responsible for responding to this Request for Information, including their title, and the request(s) to which they responded.

RESPONSE: Jerry Black, President.

Please let me know if you need anything else to assist you in your Request For Information. You may contact me by the email provided above.

Respectfully,

Matthew I. Barlow,

The Barlow Law Firm, LLC

ce: Ryan Bickmore

Statement of Certification

You are submitting the enclosed documents in response to the U.S. Environmental Protection Agency's ("EPA") Request for Information, issued pursuant to Section 208(a) of the Clean Air Act, to determine compliance with the Clean Air Act and its affiliated regulations.

I certify that I am fully authorized by Gear Box Z, Inc., to provide the above information on its behalf to the EPA.

I certify under penalty of law that I have examined and am familiar with the information in the enclosed documents, including all attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, certify that the statements and information are, to the best of my knowledge and belief, true and complete. I am aware that there are significant penalties for knowingly submitting false statements and information, including the possibility of fines or imprisonment pursuant to Section 113(c)(2) of the Clean Air Act, 42 U.S.C. § 7413(c)(2), and 18 U.S.C. §§ 1001 and 1341.

Date:

Name (Printed):

Signature:

Title:

TABLE 1 RESPONSE

| Felinistration members are reserved | | general abbundencia a liberario estelei | American way the state of the series | Commence process and analysis | Annual State of the State of S | Lancon Course Concession | | · | | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | our management days considered to the substances | |
|--|--|--|--|---|--|--|--|---|---|---|---|-------------------------------------|
| No. of units sold to U.S. wholesales, distributors, or authorized dealers since January 1, 2015 | 0 | 0 | 0 | 0 | Ů | 0 | 0 | 0 | 0 | O | O | 723 |
| No. of units sold to O.S. consumers with shipping wholesales, distributors, addresses in the U.S. since authorized dealers since January 1, 2015 | æ | 8 | The state of the s | | - | 36 | 4 | 4 77 0 | | | 4** | 143 |
| If So, which Emission Related Part(s) (e.g. DPF,CAT,EGR)? | CATIDPF | CAT/DPF | DPF | DPF | CAT/DPF | CAT/DPF | DPF | OPF | DPF | DPF | DPF | |
| Does the component If So, which Emission Emission Related Part (e.g., Related Part(s) (e.g., DPF, SCR, EGR)? | | > | , | > | ٨ | > | > | , | > | > | >- | > |
| 7 | AFE 4" Down-Pipe Back CAT/DPF Detete Race Exhaust for Ford Trucks(AFEFP4F) | AFE 4" Down-Pipe Back CAT/DPF Delete Race Exhaust for GM Trucks(AFEGMP4F) | AFE 4" Turbo Back DPF Delete Race Exhaust for Dodge Trucks(AFEDP4F) | AFE CAB & Chassis DPF Delete Race Exhaust for Dodge Trucks(AFEDPCC) | AFE CATIDPF Delete Race Exhaust for Dodge Trucks (AFEDP2) | AFE CATIDPF Delete Race Exhaust for Ford Trucks (AFEFP2) | AFE DPF Detete Race Exhaust for Dodge Trucks (AFEDP) | AFE DPF Delete Race Exhaust for Ford Trucks (AFEFP) | AFE DPF Detete Race Exhaust for GM Trucks Crew Cab Long Box (AFEGMP- CCLB) | AFE DPF Detete Race Exhaust for GM Trucks Crew Cab Short Bed (AFEGMP. CCSB) | AFE DPF Delete Race Exhaust for GM Trucks Extended Cab Short Box (AFEGMP-ECSB) | DPF-R Ford EGR Plates (GBZ- FBP) |

Page

TABLE 2 RESPONSE

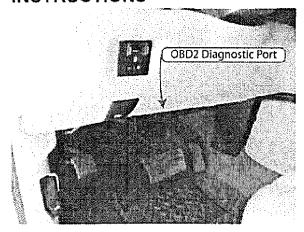
| No. of units sold to U.S. wholesales, distributors, or authorized dealers since January 1, 2015 | 99 | 3146 | 2052 | 630 | 338 | 409 | "included in about of selections | | and the same was an analysis and the same an | enter en entre esta en entre e | *included in above totals | "included in above totals | 6836 |
|--|---|--------------------------------|--------------------------------------|------------------------------------|--|---------------------|---|--------|--|--|-----------------------------------|--|--------------------|
| No. of units sold to consumers with shipping addresses in the U.S. since January 1,2015 | ۲. | 229 | | 45 | 25 | 52 | forlided to showe fotals | | L. Martiner of the standard depth of the sta | And the second s | *included in above totals | "included in above totals | 493 |
| If So, which Emission Related Part(s) does the EM product affect (e.g. DPF,CAT,EGR)? | N/A | NA | NIA | NIA | NIA | HAO. | NIA | • | A Communication of Comm | | A/N | N/A | DPF/EGR/SCR |
| Does the EM Product: (1) disable or render inoperative an Emmission Related Part, or (2) prevent diagnostic trouble codes or interfere with the veicle OBD system's ability to detect non-functioning or missing Emission Related Parts? | Z | Z | Z | Z | 2 | | Z | | and the second and the second | A CANADA | Z | Z | > |
| EM Product | ELECTRON - MULTI- FUNCTION PERFORMANCE GAUGES (GBZ-EM1.0) | Ford 4.0 Programmer (GBZ-FD40) | Ford 4.0 Programmer Plus (GBZ-FED40) | Duramax 4.0 Programmer (GBZ-GMD40) | Duramax 4.0 Programmer w/ Plus (GBZ-GMED40) | Dodge 3.0(GBZ-DD30) | Electron - Ford 2008-2010 6.4l. Power Stroke (GBZ- | EM1.0) | Electron - GM 2007.5-2010 | Electron - Ford 2011-2017 | 6.7L Power Stroke (GBZ- EM1.0) | Electron - GM 2011-2017 LML Duramax (GBZ-EM1.0) | Maintenance Mode** |

Add-On for all OBD Products

INSTALLATION INSTRUCTIONS

DODGE

DPF-R 3.0 INSTALLATION INSTRUCTIONS



Plug the module into the diagnostic port. The diagnostic port is under the dash, below and to the left of the steering column. Secure the device up under the dash where it will not be in the way. Attach dpf emulator and pressure sensor emulators

IMPORTANT: Wait at least 15 seconds after key is on before starting engine.

Function light will flash quick when it is communicating, then will flash slowly when it is done.

IMPORTANT: If you are using a chip programer, or when the vehicle is taken to a repair center, it is recommended that you first unplug the DPF-R module.

EXHAUST NOTES: If you are doing your own exhaust mod, it is important to place all sensors (except dpf pressure) back into the exhaust. Reference the stock pipe for location.



DISCLAIMER OF LIABILITY

THIS IS A HIGH PERFORMANCE PRODUCT. USE AT YOUR OWN RISK. Do not use this Product until you (the "Buyer") have carefully read this Disclaimer. The installation of this Product Indicates that you have read and understand, and accept all of the terms of, this Disclaimer.

•Gear Box Z Inc., their affilliates, distributors, dealers, et al. (hereafter referred to as the "Seller") shall not be responsible for the Product's proper installation, use and service. Rather, the Buyer shall look solely to the installer who installs the Product for any service and support needed by the Buyer with respect thereto, as well as any damage that may be done to vehicle components as a result of modifications made by the installer.

• The Buyer is responsible to fully understand the capability and limitations of his/her vehicle according to manufacturer specifications, warnings and instructions and agrees to hold the Seller harmless from any damage resulting from failure to adhere to such specifications, warnings and/or instructions. The Buyer is also responsible to obey all applicable federal, state, and local laws, statutes, and ordinances when operating his/her vehicle, and the Buyer agrees to hold Seller harmless from any violation thereof.

• The Sellers Limited Warrant for this Product is the Buyers exclusive warranty and is in lieu of all other warranties, express or implied, except as may be required by applicable law. Without limiting the generality of the foregoing, the Seller shall not be liable for any breach of any other written or oral warranties given to the Buyer by any third party(les) such as those (if any) given to the Buyer by dealers or distributors of the Product.

 Consult your vehicle warranty before using this Product. Under no circumstances will the Seller be liable for the voidance of the Buyer's vehicle warranty. Rather, the Buyer assumes all risk and responsibility if an automotive manufacturer and/or dealer void the Buyers vehicle warranty due to use of this Product.

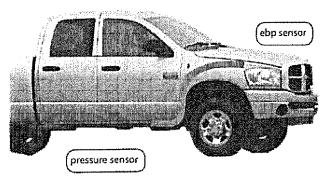
• This product modifies the programming on the trucks computer. WARNING: If the download falls for any reason the truck may be rendered unusable until a recovery can be done on the ECU. BY USING THIS PRODUCT YOU AGREE THAT YOU UNDERSTAND AND TAKE RESPOSIBILITY FOR THIS RISK.

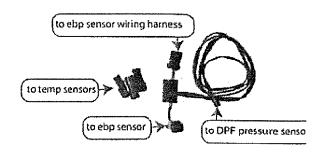
· Operate your vehicle at all times in a safe manner. Regardless of any capability, feature or function of the Seller's Products, the Buyer understands and acknowledges that it is the Buyer's sole responsibility to ensure that (A) the motor vehicle is operated in a safe and legal manner, (B) the motor vehicle is not driven faster than the lower of the speed limit or the speed rating of the tires on the vehicle in which the Seller's product is installed, and (C) the maximum RPM or speed rating of the engine is not exceeded while operating the motor vehicle. In no case will the Seller be held flable, and the Buyer assumes all risk and responsibility, for any property damage, personal injury and/or death that may occur in the event the Buyer operates the vehicle in an unsafe manner, violates the law or exceeds the above mentioned limits. Please check your local, state and federal laws to determine if you are within your rights to modify your vehicle's exhaust. The Seller makes no representation or warranty, express or implied that the use of its Products will comply with local, state, or Federal emission levels, noise levels or safety standards. The Buyer assumes all responsibility for such use and compliance. SELLER IS NOT LIABLE FOR AND HEREBY EXCLUDES ANY AND ALL INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUEN-TIAL DAMAGES RELATING TO THE PRODUCTS COVERED BY THIS DISCLAIMER. The Seller's Limited Warranty for this Product gives you specific legal rights, and you may also have other rights which may vary from state to state. Pertinent state law shall control for what Period of time following the sale a consumer may seek a remedy under the implied warranty of merchantability or fitness for a particular purpose. Some states do not allow the exclusion or limitation of incidental or consequential damages so the above limitations. or exclusions may not apply to you.

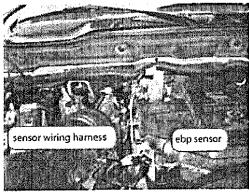
IN THE EVENT THAT THE BUYER DOES NOT AGREE WITH THIS DISCLAIMER, THE BUYER MAY PROMPTLY RETURN THIS PRODUCT, IN A NEWAND UNUSED CONDITION, WITH A DATED PROOF OF PURCHASE, TO THE PLACE OF PURCHASE WITHIN FOURTEEN (14) DAYS FROM DATE OF PURCHASE FOR A FULL REFUND.

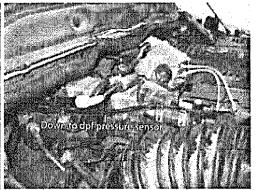
8

Case 3:20-cv-08003-JJT Document 37-1 Filed 08/20/20 Page 39 of 74 DPF Emulator Installation

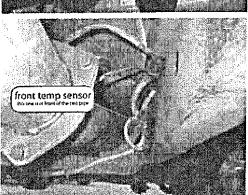


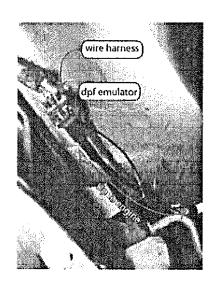


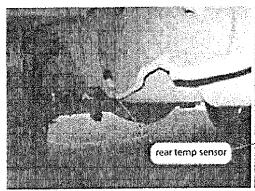


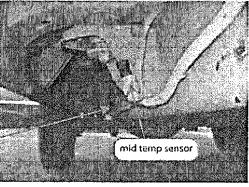












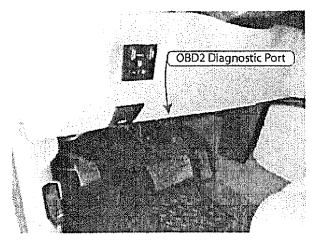
- 1) Install onto ebp sensor. The two short cables connect in line between the trucks connectors. Plug the female end into the sensor, and the male end into the wiring harness.
- 2) Route the long cable down to DPF pressure sensor. Run the cable back then down along the dip stick, and then rearward to the DPF sensor.
- 3) Install onto pressure sensor. Unplug pressure sensor & plug cable in place of pressure sensor.
- 4) Secure any loose or sagging cable with clips or zip ties as needed.
- 5) Clip the temp sensor emulators onto the temp sensor wiring harnesses. The front temp sensor is in front of the test pipe. Unplug the front temp sensor and plug in a temp sensor emulator.

Optional: use the included heat shrink on the oem sensor plug to keep it clean in case you return the truck back to stock in the future.



WWW,DPF-R,COM

FORD DPF-R 4.0 INSTALLATIONS INSTRUCTIONS



Plug the module into the diagnostic port. The diagnostic port is under the dash, below and to the left of the steering column.

The device will power up automatically.

Follow the voice promts. Navigate the menu with the "YES" and "NO" buttons.

Power/function (green) light will flash when it is communicating.

Warning (red) light will be on while writing to the ECU. DO NOT UNPLUG WHILE THE RED LIGHT IS ON

If you are using with a chip/programer it is recommended that you install the DPF-R first.

EXHAUST NOTES: Exhaust sensors need to be connected to the truck wiring harness. Exhaust sensors do not need to go back into the pipe.

DPF-R 4.0 DISCLAIMER

THIS IS A HIGH PERFORMANCE PRODUCT, USE AT YOUR OWN RISK. Do not use this Product until you (the "Buyer") have carefully read this Disclaimer. The installation of this Product indicates that you have read and understand, and accept all of the terms of, this Disclaimer.

 Gear Box Z Inc., their affiliates, distributors, dealers, et al. (hereafter referred to as the "Seller") shall not be responsible for the Product's proper installation, use and service. Rather, the Buyer shall look solely to the installer who installs the Product for any service and support needed by the Buyer with respect thereto, as well as any damage that may be done to vehicle components as a result of modifications made by the installer.

- The Buyer is responsible to fully understand the capability and limitations of his/her vehicle according to manufacturer specifications, warnings and instructions and agrees to hold the Seller hamiless from any damage resulting from failure to adhere to such specifications, warnings and/or instructions. The Buyer is also responsible to obey all applicable federal, state, and local laws, statutes, and ordinances when operating his/her vehicle, and the Buyer agrees to hold Seller hamiless from any violation thereof.
- The Sellers Limited Warrant for this Product is the Buyers exclusive warranty and is in lieu of all other warranties, express or implied, except as may be required by applicable law. Without limiting the generality of the foregoing, the Seller shall not be liable for any breach of any other written or oral warranties given to the Buyer by any third party(les) such as those (if any) given to the Buyer by dealers or distributors of the Product.
- Consult your vehicle warranty before using this Product. Under no circumstances will the Seller be liable for the voidance of the Buyer's vehicle warranty.
 Rather, the Buyer assumes all risk and responsibility if an automotive manufacturer and/or dealer void the Buyers vehicle warranty due to use of this Product.
- This product modifies the programming on the trucks computer, WARNING:
 If the download fails for any reason the truck may be rendered unusable until a
 recovery can be done on the ECU, BY USING THIS PRODUCT YOU AGREE
 THAT YOU UNDERSTAND AND TAKE RESPONSIBILITY FOR THIS RISK,
- Operate your vehicle at all times in a safe manner. Regardless of any capability, feature or function of the Seller's Products, the Buyer understands and acknowledges that it is the Buyer's sole responsibility to ensure that (A) the motor vehicle is operated in a safe and legal manner, (B) the motor vehicle is not driven faster than the lower of the speed limit or the speed rating of the tires. on the vehicle in which the Seller's product is installed, and (C) the maximum RPM or speed rating of the engine is not exceeded white operating the motor vehicle, in no case will the Seller be held liable, and the Buyer assumes all risk and responsibility, for any property damage, personal injury and/or death that may occur in the event the Buyer operates the vehicle in an unsafe manner. violates the law or exceeds the above mentioned limits. Please check your tocal, state and federal laws to determine if you are within your rights to modify your vehicle's exhaust. The Seller makes no representation or warranty, express or implied that the use of its Products will comply with local, state, or Federal emission levels, noise levels or safety standards. The Buyer assumes all responsibility for such use and compliance,

SELLER IS NOT LIABLE FOR AND HEREBY EXCLUDES ANY AND ALL IN-DIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES RELAT-ING TO THE PRODUCTS COVERED BY THIS DISCLAIMER. The Seller's Limited Warranty for this Product gives you specific legal rights, and you may also have other rights which may vary from state to state. Pertinent state law shall control for what Period of time following the sale a consumer may seek a remedy under the implied warranty of merchantability or fitness for a particular purpose. Some states do not allow the exclusion or limitation of incidental or consequential damages so the above limitations or exclusions may not apply to you.

IN THE EVENT THAT THE BUYER DOES NOT AGREE WITH THIS DIS-CLAIMER, THE BUYER MAY PROMPTLY RETURN THIS PRODUCT, IN A NEW AND UNUSED CONDITION, WITH A DATED PROOF OF PURCHASE. TO THE PLACE OF PURCHASE WITHIN FOURTEEN (14) DAYS FROM DATE OF PURCHASE FOR A FULL REFUND.

EMERGENCY RECOVERY DISCLAIMER

The Special Recovery function of this product is intended only as an emergency use in case something goes wrong during programming of the ECU (te power failure, accidental usplugging of the programmer, etc.) This function should only be used as a last resort. This function should not be used to recover or troubleshoot another truck. This function is not guaranteed to work, and may not apply the same

firm ware as was originally on the truck. The Special Recovery function of this product is not intended to be used to troubleshoot or diagnose problems. Under no circumstances will the Seller be liable for any damages or expenses incurred by reason of the use of this product. USE OF THE SPECIAL RECOVERY FUNCTION OF THIS PRODUCT INDICATES THE USER UNDERSTANDS AND AGREES WITH THIS EMERGENCY RECOVERY DISCLAIMER AND THE DPF-R 4.0 DISCLAIMER.

12





DPF-R 4.0 DIAGNOSTICS INSTRUCTIONS

THIS FUNCTION IS FOR THE CONVENIENCE OF THE OWNER AND IS NOT INTENDED TO TAKE THE PLACE OF A QUALIFIED TECHNICIAN.

Plug the module into the diagnostic port. The diagnostic port is under the dash, below and to the left of the steering column.

The device will power up automatically.

Follow the voice prompts. Navigate the menu with the "YES" and "NO" buttons.

Navigate to "Diagnostics and emergency recovery" menu.

Press "YES" when asked if you would like to read diagnostic codes. When the product is finished reading codes it will ask if you want to read them again. Press "NO" to move on to the code clearing menu.

Press "YES" or "NO" to clear or leave trouble codes.

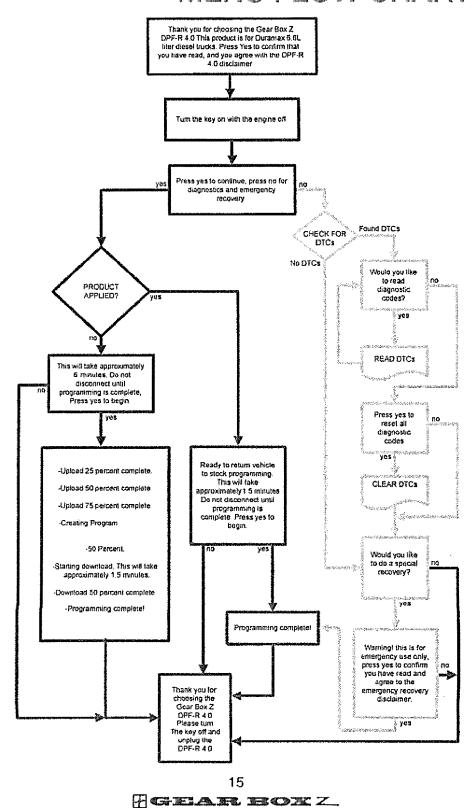
Press "NO" to skip the emergency recovery and you will be promted to unplug the device.

DIAGNOSTIC TROUBLE CODES

P0091 Fuel Volume Regulator Control Caracit P0003 Fuel Volume Regulator Control Circuit Low P0004 Fuel Volume Regulator Control Circuit High POOCE Fuel Volume Regulator Control Exception 0 Learning Limit POCC9 MAP - Barometric Pressure Consistion POCC9 MAP/Educat Pressure Comistion P0067 Fuel Rail System Pressure - Too Low P008C Fuel Cooler Pump Control Circuit/Open P008D Fuel Cooler Pump Control Crouit Low P008E Fuel Cooler Pump Control Crouit High P008F Engine Coclant Temperature Fuel Tem P0090 Fuel Pressure Regulator Control Circuit P0091 Fuel Pressure Regulator Control Circuit Low P0092 Fuel Pressure Regulator Control Circuit High P0098 Intake Air Temporature Sensor 2 Circuit Range/Performance P0097 Intake Air Temperature Sensor 2 Circuit Low P0098 Intake Air Temperature Sensor 2 Catuat High P0101 Mass or Votume Air Flow A Circuit Renoe/Performance P0102 Mass or Volume Air Flow A Circuit Low P0103 Mass or Volume Air Flow A Circuit High P0104 Mass or Volume Ar Flow A Carout Intermittent Emitto Manifold Absolute Pressure (MAP/SARO) Sensor Range/Performance P0107 Manifold Absolute Pressure (MAPyBarometric Pressure (BARO) Sensor Low
P0108 Mandold Absolute Pressure (MAPVBarometric Pressure (BARO) Sensor High P0112 Intake Air Temperature (IAT) Sensor 1 Circuit Low P0113 Intake Air Temporatura (IAT) Sensor 1 Cross High P0114 Intake Air Temperature (IAT) Sensor 1 Internstient Emission P0117 Engine Cookert Temperature Sensor 1 Circuit Low P0118 Engine Cockint Temperature Sensor 1 Circuit High P0128 Cockint Thermostal (Cockint Temperature Sellow Thermostal Regulating Temperature) P0148 Fuel Delivery Error PO149 Fuel Timera Error PO149 Fuel transplanar
PO188 Engine Fuel Temporature Too High
PO181 Fuel Temporature Sensor A Circuit Range/Performance
PO182 Fuel Temporature Sensor A Circuit Law
PO183 Fuel Temporature Sensor A Circuit High
PO191 Fuel Rail Pressure Sensor A Circuit Range/Performance P0192 Fool Rail Pressure Sensor A Circuit Low P0193 Fool Rail Pressure Sensor A Circuit High P0194 Fuel Rai Pressure Sensor A Circust Intermittent/Emrisc P0195 Engine Oil Temperature Sensor Circust Range/Performa PO197 Engate Cil Temperature Sensor Caract Low PO198 Engine Oil Temperature Sensor Caract High PO201 Injector Circuit Open - Cylinder 1 P0202 Injector Circuit/Open - Cylinder 2 P0203 Injector Circuit/Open - Cylinder 3 P0204 Injector Circuit/Open - Cytoder 4 P0205 Injector Circuit/Open - Cylinder 5 P0206 Injector Circuit/Open - Cylinder 6 P0207 Injector Circuit/Open - Cylinder 7 P0208 Injector Circuit/Open - Cylinder 8 P0216 Injector/rjection Timing Control Cecuit P0219 Engine Overspeed Condition P0231 Fuel Pump Secondary Circuit Low P0232 Fuel Pump Secondary Croust Fight P0234 Turbocharger/Supercharger A Ova P0263 Cylinder 1 Contribution (Balance P0266 Cylinder 2 Contribution/Balance P0269 Cylinder 3 Contribution/Balance P0272 Cvénder 4 Contribution Balance P0275 Cylinder 5 Constitution/Balance P0278 Cylinder B Contribution/Salance P0281 Cylinder 7 Combusov Bilance P0284 Cylinder 8 Combusov Bolance P0297 Vehicle Overspeed Condition P0298 Engine Oil Overlemperature Condition POZCC Cylinder 1 Fuel Intector Offset Loarrang at Minimum Limit P02CD Cylinder I Fuel Injector Offset Learning at Maximum Line P02CD Cylender 1 Fool Injector Offset Learning at Maximum Limit P02CE Cylender 2 Fuel Injector Offset Learning at Maximum Limit P02CE Cylender 2 Fuel Injector Offset Learning at Maximum Limit P02CD Cylender 3 Fuel Injector Offset Learning at Maximum Limit P02DD Cylender 3 Fuel Injector Offset Learning at Maximum Limit P02DD Cylender 4 Fuel Injector Offset Learning at Maximum Limit P02DD Cylender 4 Fuel Injector Offset Learning at Maximum Limit P02DD Cylender 5 Fuel Injector Offset Learning at Maximum Limi P02D5 Cylinder 5 Fuel Injector Offset Laurning at Masemum Limit P02D8 Cylinder 6 Fuel Injector Offset Learning at Minimum Limit P02D7 Cylinder 6 Fuel Injector Offset Learning at Masemum Limit P0208 Cylinder 7 Fuel Nector Offset Learning at Masimum Limit P0209 Cylinder 7 Fuel Injector Offset Learning at Masimum Limit P020A Cylinder 8 Fuel Injector Offset Learning at Manmum Limit P020B Cylinder 8 Feel Injector Offset Learning at Massimum Limit P0300 Ranxiom Mistins Described P0301 Cylinder 1 Mistins Described P0302 Cylinder 2 Mistire Detected P0302 Cylinder 2 Matrie 1,499090 P0303 Cylinder 3 Matrie Detocase P0304 Cylinder 5 Matrie Detocase P0305 Cylinder 5 Matrie Detocase P0306 Cylinder 6 Matrie Detocase

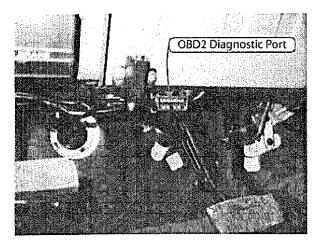
| | DIDTA About of I/CCD First Processor Column |
|--|---|
| P0307 Cylinder 7 Misfire Detected P0308 Cylinder 8 Misfire Detected | P127A Aborted KOER - Fuel Pressure Feature |
| P0338 Crankshad Position Sensor A Circuit Range/Performance | P132A Turbocharger/Supercharger Boost Control A Electrical P132B Turbocharger/Supercharger Boost Control A Performance |
| P0337 Crankshoft Pouson Sensor A Circuit Low | P132C Turbocharger/Supercharger Secal Control A Voltage |
| P0341 Camehat Position Sensor A Circuit Range Performance (Bank 1 or Simple Sensor) | P1335 Exhaust Gas Recirculation (EGR) Position Sensor Minimum Maximum |
| P0342 Camshaft Poston Sensor A Circuit Low (Bank 1 or Single Sensor) | Sup Perkurrence |
| P03B1 (Jow Plugitienter Indicator Circuit | P1336 Crankshaft/Carmshaft Sensor Range/Performance P136D Turbochanger Boost Control A Temperature Too High |
| PD401 Exhaust Gas Recirculation (EGR) Flow Insufficient Detected PD402 Exhaust Gas Recirculation (EGR) Flow Excessive Detected | P1397 System Voltage Out Of Self-Test Range |
| P0403 Extraust Gas Recirculation (EGR) Control Circuit | P1408 Exhaust Gas Recirculation (EGR) Flow Out Of Solf-Test Range |
| P0404 Exhaust Gas Recirculation (EGR) Corerol Circul Range Performance | P1464 ArC Demand Out Of Self-Test Range P1501 Vehicle Speed Sensor Out Of Self-Test Range |
| PO405 Exhaust Gas Recirculation (EGR) Sensor A Circuit Low | P1531 Invalid Test-Accelerator Pedal Movement |
| P0406 Exhaust Cas Recirculation (EGR) Sensor A Carout High P0408 Exhaust Gas Recirculation Temperature (EGRT) Sensor A | P1536 Parking Brake Switch Circuit |
| Cross Range Parlomance | P1551 Cylinder 1 Injector Circuit Range/Performance |
| PD4DC Exhaust Gas Recirculation Temperature (EGRT Sensor A Circuit Low | P1552 Cylinder 2 Injector Circuit Range/Performance P1553 Cylinder 3 Injector Circuit Range/Performance |
| P0400 Exhaust Gas Recrusiation Temperature (EGRT) Sensor A Cross High P0418 Exhaust Gas Recrusiation Temperature (EGRT) Sensor B Cross | P1554 Cylinder 4 Injector Circuit Range/Performance |
| For 10 Engage and a second in the second sec | P 1555 Cylinder 5 Injector Circuit Range Performance |
| P041C Exhaust Gas Recrossoon Temperature (EGRT) Sensor & Circuit Law | P1556 Cylinder 6 hjscorr Croud Range Performance P1557 Cylinder 7 injector Croud Range Performance |
| PO41D Extract Gas Recruitation Temperature (EGRT) Sensor 9 Circuit High | P1558 Cylinder 8 Injector Croux Range/Porformance |
| P0420 Catalyst System Efficiency Below Threshold (Bank 1) P042E Exhaust Gas Recordation (EGR) Control Stuck Open | P1566 Electronic Throdes to PCM Communication Error |
| PD42F Exhaust Gas Recimilation (EGR) Control Stock Closed | P107S Internal Control Module PTO Performance |
| P0472 Exhaust Pressure Sensor A Circuit Low | P1635 Tira/Ayle Out Of Acceptable Range P1639 Vehicle ID Block Corrupted, Not Programmed |
| PO473 Exhaust Pressure Sensor A Circust High | P 1703 Strake Switch Out OI Self-Test Range |
| P0480 Fan 1 Centrol Circuit P0488 Exhibust Gas Recensiation (EGR) Throttle Control Circuit A | P1705 Transmission Range Circuit Not Indicating Part/Heutral During Self-Test |
| RangePerformance | P1725 Insulficent Engine Speed Increase During Self-Test |
| PO494 Fan Speed Low | P 1726 Insufficient Engine Speed Decrease During Self-Test P174E Output Shaft Speed / ABS Wheel Speed Correlation |
| PD495 Fan Speed High P0500 Veltide Speed Sensor A | P179A Controller Area Network (CAN) Engine Control Module |
| PG503 Vehicle Speed Sensor (VSS) A Intermittent Ematch of t | (ECM)/Turbocharger Boost Control A Actuator Certus Mains schon |
| P0512 States Request Circuit | P2002 Diesel Particulate Filter Efficiency Below Threshold (Bank 1) P2006: Catalyst System Over Temperature (Bank 1) |
| P0528 Fan Speed Sensor Croud No Signal | P2031 Exhausi Gas Temperature Sensor Circuit Bank 1 Sensor 2 |
| P0529 Fan Speed Sensor Circuit Intermitions P0544 Exhibits Gas Temperature Sensor Circuit - Bank 1 Sensor 1 | P2032 Exhausi Gos Temporature Sensor Circuit Low Bank 1 Sensor 2 |
| P0545 Euroust Gas Temperature Sensor Circuit Low - Bank 1 Sensor 1 | P2003 Exhaust Gris Temperature Sensor Circuit High Bank 1 Sensor 2 |
| P0548 Exhaust Gas Temperature Sensor Carout High - Eartk 1 Sensor 1 | P2080 Exhaust Gas Temperature Sensor Circuit Range Performance Bank 1 Sensor 1 |
| P0560 System Voltage P0663 System Voltage High | P2081 Exhaust Gas Temperature Sensor Circuit Intermittent Bank 1 Sensor 1 |
| P0565 Case Control ON Signal | P2064 Extremit Gas Temperature Sensor Circuit Ranger Performance |
| P0568 Cruse Control OFF Signal | Bank 1 Sensor 2 P2085 Edissust Gas Temperature Sensor Circuit Intermittent Bank 1 Sensor 2. |
| P0567 Crase Control RESUME Signal | P20E2 Exhaust Gas Temperature Sensor 1/2 Correlation Bank 1 |
| P0568 Cruse Control SEF Synal P0569 Cruse Control CCAST Synal | PZ0E3 Exhaust Gas Temperature Sensor 1/3 Correlation Earlk 1 |
| POS71 Brake Switch A Circuit | P20E4 Exhaust Gas Temperature Sensor 2/3 Correlation Bank 1 |
| PG600 Serial Communication Link | P2122 Throttle Pedal Pedalon Sensor/Switch D Carait Low P2123 Throttle Pedal Feation Sensor/Switch D Carait High |
| P0802 Powertein Control Module (PCM) Programming Enter | P2127 Throde/Potal Protein Sensor/Seatch & Circuit Low |
| PC603 Internat Control Modula Keep Alive Memory (KAM) Error PC604 Internat Control Modula Random Access Memory (RAM) Error | P2128 Throttle/Petal Postion Sensor/Switch & Circuit High |
| P0605 Internal Control Module Read Only Memory (ROM) Error | P2138 Twottle/Podal Position Sensor/Switch D/E Voltage Correlation |
| P060B Internal Control Module A/D Processing Performance | P215A Vehicle Speed / Wheel Speed Correlation P215B Vehicle Speed / Quiput Shaft Speed Correlation |
| P060C Internal Control Module Mari Processor Performance P060D Internal Control Module Accelerator Pedal Position Performance | P2 199 Intake As Temperature (IAT) 1/2 Correlation |
| P0810 Control Module Vehicle Options Error | P2228 Barrametric Pressure Circust Low |
| POSTB Internal Control Module Torque Calculation Performance | P2229 Barometric Pressure Circus High |
| POS1C Internal Control Module Engine RPM Performance | P2230 Barometro Pressure Circust Intermittent P2282 Turbo Super Charger Boost Pressure Not Detected — Mechanical |
| P0620 Generator Control Circuit P0625 Generator Fiold Terminal Circuit Llow | P2263 Turbo/Super Charger Boost System Performance |
| P0626 Generator Field Termanal Circuit High | P2209 Winter in Fixed Condition |
| P0927 Fuel Pump A Control Circuit Open | P2289 Injector Control Pressure Too High - Engine Off P2291 Injector Control Pressure Too Low - Engine Cranking |
| P0828 Fuel Pump A Control Circuit Low | P242A Extrausi Gos Temperatura Sensor Circuit Bank † Sensor 3 |
| P0529 Fuel Pump A Control Circuit High P052D Fuel Intentor Dever Circuit Performance Bank 1 | P2428 Exhaust Gas Temperature Sonsor Catast Range Performance |
| P082E Fuel Injector Daver Circuit Performance Bank 2 | Bank 1 Sersor 3 |
| P0642 Sansor Reference Voltage A Circuit Low | P242C Exhaust Gas Temperature Sensor Circuit Low Bank 1 Sensor 3 P242D Exhaust Gas Temperature Sensor Circuit High Bank 1 Sensor 3 |
| P0843 Sensor Reference Vollage A Circuit High P0852 Sensor Reference Vollage B Circuit Low | P242E Extracts Gras Temperature Sensor Circus Intermittant Engite |
| PGGS3 Sensor Reference Votage & Carcut High | Bank 1 Sensor 3 |
| P0670 Glav Plug Control Module (GPCM) Control Circuit/Open | PZ42F Diesel Particulate Filter Restriction - Ash Accumulation |
| P0671 Cylinder 1 Glow Plug Crouit Colon | P244A Diesel Parkoukto Filter Differential Pressure Too Low P244C Exhaust Temperature Too Low For Paraculate Filter Regeneration, |
| P9672 Cylinder 2 Glow Plug Circut/Cipin P9673 Cylinder 3 Glow Plug Circut/Cipin | Bank 1 |
| P0973 Cythder 3 Glow Plug Circuit Open P0874 Cythder 4 Glow Plug Circuit Open | P244D Exhaust Temperature Too High For Parisculate Filter Regeneration, |
| P0675 Cylander 5 Glow Plug CircustOpen | Bank 1 |
| P0076 Cylindar & Glow Plug Circuit Cpen | P2452 Dissel Particulate Filter Pressure Sensor A Circuit P2453 Diesel Particulate Filter Pressure Sensor A Circuit Range Performance |
| P0677 Cylinder 7 Glow Plug Circus Open P0678 Cyfinder 8 Clow Plug Circus Copen | P2454 Dissel Particulate Filter Pressure Sensor A Circus Low |
| P0684 Glow Plug Control Module (GPCM) to Powertrain Control Module | P2455 Diesel Particulate Filter Pressure Sensor A Circuit High |
| (PCM) Communication Circuit Range/Performance | P2456 Dissel Parto Jule Filter Pressure Sensor A Circuit Intermittent/Emake. P2457 Extraunt Gas Recirculation (EGR) Cooker System Performance |
| P0591 Fan 1 Control Cross Low | P2458 Disset Particulate Filter Regeneration Duration |
| P0692 Fan 1 Control Crowl High P0703 Brake Switch Binput Circuit | P2459 Diesel Particulate Filter Regeneration Frequency |
| P0704 Clurch Switch Input Circuit | P2463 Diesel Particulate Filter - Soot Accumulation P246C Passel Particulate Filter Respirators - Committing test Classes |
| POADS DC/DC Converter States Circuit Low | P246C Diesel Partizusier Fitter Restriction - Forced Limited Power P2545 Torque Marragement Request Input Signal A Range / Performance |
| P0A10_DC/DC Converter Status Circust High P1000_Cn-Board Diagnosis (CBO) Systems Readiness Yest Not Complete | P2563 Turbocharger Boost Control Position Sensor A Circuit Range |
| P1102 Mass Air Flow Sensor In Range But Lower Than Expected | Performance |
| P 1103 Mass Air Flow Sensor in Range But Higher Than Expected | P2610 Electronic Control Modula (ECM/Powertrain Control Modula (PCM) Internal Engine Of Timer Performance |
| P1111 System Pass P115A Low Fuel Level - Forced Limited Power | U0073 Control Module Communication Bus A Off |
| P115A Low York Level - Ported Limited Power P117B Editals: Ges Temperature Sensor Correlation - Bank 1 | U0101 Lest Communication With Transmission Control Module (TCM) |
| P117F Fuel Pressure Requirer Control Exceeded Licentry Limits | U0121 Lost Communication With The Anti-lock Brake System (ABS): Control Module |
| P1184 Engine Ol Temperature Sensor Out Of Set Test Range | Construincouse U0137 Lost Communication With Trailer Brake Control (TBC) Module |
| P120F Fuel Pressure Regulator Excessive Variation P123C Cold Start Turba Protection - Forced Limited Power | U0151 Lost Communication With Restrants Control Module (RCM) |
| P1280 That Descred, Vericle Immobilized | U0155 Lost Communication With Instrument Panel Cluster (IC) Control Module |
| | |

VOICE PROMPT NENU FLOW CHART



FORD PLUS

DPF-R 4.0 INSTALLATIONS INSTRUCTIONS



Plug the module into the diagnostic port. The diagnostic port is under the dash, below and to the left of the steering column.

The device will power up automatically.

Follow the voice promts. Navigate the menu with the "YES" and "NO" buttons.

Power/function (green) light will flash when it is communicating.

Warning (red) light will be on while writing to the ECU. DO NOT UNPLUG WHILE THE RED LIGHT IS ON

If you are using with a chip/programer it is recommended that you install the DPF-R first.

EXHAUST NOTES: Exhaust sensors need to be connected to the truck wiring harness. Exhaust sensors do not need to go back into the pipe.

DPF-R 4.0 DISCLAIMER

THIS IS A HIGH PERFORMANCE PRODUCT, USE AT YOUR OWN RISK, Do not use this Product until you (the "Buyer") have carefully read this Disclaimer. The installation of this Product indicates that you have read and understand, and accept all of the terms of, this Disclaimer.

·Gear Box Z Inc., their affilliates, distributors, dealers, et al. (hereafter referred to

as the "Seller") shall not be responsible for the Product's proper installation, use and service. Rather, the Buyer shall look solely to the installer who installs the Product for any service and support needed by the Buyer with respect thereto, as well as any damage that may be done to vehicle components as a result of modifications made by the installer.

- The Buyer is responsible to fully understand the capability and limitations of his/her vehicle according to manufacturer specifications, warnings and instructions and agrees to hold the Seller harmless from any damage resulting from failure to adhere to such specifications, warnings and/or instructions. The Buyer also responsible to obey all applicable federal, state, and local laws, statutes, and ordinances when operating his/her vehicle, and the Buyer agrees to hold Seller harmless from any violation thereof.
- The Sellers Limited Warrant for this Product is the Buyers exclusive warranty and is in fleu of all other warranties, express or implied, except as may be required by applicable law. Without limiting the generality of the foregoing, the Seller shall not be liable for any breach of any other written or oral warranties given to the Buyer by any third party(ies) such as those (if any) given to the Buyer by dealers or distributors of the Product.
- Consult your vehicle warranty before using this Product. Under no circumstances will the Seller be liable for the voidance of the Buyer's vehicle warranty.
 Rather, the Buyer assumes all risk and responsibility if an automotive manufacturer and/or dealer void the Buyers vehicle warranty due to use of this Product.
- This product modifies the programming on the trucks computer. WARNING:
 if the download fails for any reason the truck may be rendered unusable until a
 recovery can be done on the ECU, BY USING THIS PRODUCT YOU AGREE
 THAT YOU UNDERSTAND AND TAKE RESPOSIBILITY FOR THIS RISK.
- Operate your vehicle at all times in a safe manner, Regardless of any capability, feature or function of the Seller's Products, the Buyer understands and acknowledges that it is the Buyer's sole responsibility to ensure that (A) the motor vehicle is operated in a safe and legal manner, (B) the motor vehicle is not driven faster than the lower of the speed limit or the speed rating of the tires. on the vehicle in which the Seller's product is installed, and (C) the maximum RPM or speed rating of the engine is not exceeded while operating the motor vehicle. In no case will the Seller be held liable, and the Buyer assumes all risk and responsibility, for any property damage, personal injury and/or death that may occur in the event the Buyer operates the vehicle in an unsafe manner, viotates the law or exceeds the above mentioned limits. Please check your local, state and federal laws to determine if you are within your rights to modify your vehicle's exhaust. The Seller makes no representation or warranty, express or implied that the use of its Products will comply with local, state, or Federal emission levels, noise levels or safety standards. The Buyer assumes all responsibility for such use and compliance.

SELLER IS NOT LIABLE FOR AND HEREBY EXCLUDES ANY AND ALL IN-DIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES RELAT-ING TO THE PRODUCTS COVERED BY THIS DISCLAIMER. The Seller's Limited Warranty for this Product gives you specific legal rights, and you may also have other rights which may vary from state to state. Pertinent state law shall control for what Period of time following the safe a consumer may seek a remedy under the implied warranty of merchantability or fitness for a particular purpose. Some states do not allow the exclusion or limitation of incidental or consequential damages so the above limitations or exclusions may not apply to you.

IN THE EVENT THAT THE BUYER DOES NOT AGREE WITH THIS DIS-CLAIMER, THE BUYER MAY PROMPTLY RETURN THIS PRODUCT, IN A NEW AND UNUSED CONDITION, WITH A DATED PROOF OF PURCHASE, TO THE PLACE OF PURCHASE WITHIN FOURTEEN (14) DAYS FROM DATE OF PURCHASE FOR A FULL REFUND.

EMERGENCY RECOVERY DISCLAIMER

The Special Recovery function of this product is intended only as an emergency use in case something goes wrong during programming of the ECU (ie power failure, accidental unplugging of the programmer, etc.) This function should only be used as a last resort. This function should not be used to recover or troubleshoot another truck. This function is not guaranteed to work, and may not apply the same firmware as was originally on the truck. The Special Recovery function of this product is not intended to be used to troubleshoot or diagnose problems. Under no circumstances will the Seller be liable for any damages or expenses incurred by reason of the use of this product. USE OF THE SPECIAL RECOVERY FUNCTION OF THIS PRODUCT INDICATES THE USER UNDERSTANDS AND AGREES WITH THIS EMERGENCY RECOVERY DISCLAIMER.

18



DPF-R 4.0 DIAGNOSTICS INSTRUCTIONS

THIS FUNCTION IS FOR THE CONVENIENCE OF THE OWNER AND IS NOT INTENDED TO TAKE THE PLACE OF A QUALIFIED TECHNICIAN.

Plug the module into the diagnostic port. The diagnostic port is under the dash, below and to the left of the steering column.

The device will power up automatically.

Follow the voice prompts. Navigate the menu with the "YES" and "NO" buttons.

Navigate to "Diagnostics and emergency recovery" menu.

Press "YES" when asked if you would like to read diagnostic codes. When the product is finished reading codes it will ask if you want to read them again. Press "NO" to move on to the code clearing menu.

Press "YES" or "NO" to clear or leave trouble codes.

Press "NO" to skip the emergency recovery and you will be promted to unplug the device.

DIAGNOSTIC TROUBLE CODES

P0001 Fuel Volume Regulator Control Circuit P0003 Fuel Volume Regulator Control Circuit Low P0004 Fuel Volume Regulator Control Circuit High PCCCE Fire! Volume Regulator Corerol Exceeded Learning Lime PODES MAP - Berometric Pressure Correlation
PODES MAP Exhaust Pressure Correlation POGGG Fuel Rai/System Pressure - Too Hors PCCSC Fuel Cooler Pump Caretal Circus/Core PCCSO Fuel Cooler Pump Caretal Circus Low PODBE Fuel Cooler Pump Control Cross High PODBF Engine Coolant Temperature Fuel Temp PODB Fuel Pressure Regulator Control Circuit P0091 Fuel Pressure Requisitor Control Circuit Low P0092 Fuel Pressure Requisitor Control Circuit High PODDS Intake Air Temperature Sensor 2 Circuit Range Performance P0097 Intake Air Temperature Sensor 2 Circuit Low P0098 Intake Air Temperature Sensor 2 Circuit High P0101 Mass or Volume Air Flow A Circuit Range Performance P0102 Mass or Volume Air Flow A Circuit Low P0103 Mass or Volume Air Flow A Caput High P0104 Mass or Volume Ar FlowA Cross Intermetent/Emac P0108 Manifold Absolute Pressure (MAP-BARO) Sensor Range/Performance P0107 Mankud Absolute Pressure (MAP) Elemonetric Pressure (BARCI) Sensor Low P0108 Mankud Absolute Pressure (MAP) Elemonetric Pressure (BARCI) Sensor High POTITE Inside Air Temperature (AT) Sensor 1 Circus High POTITE Inside Air Temperature (AT) Sensor 1 Circus High POTIS Inside Air Temperature (AT) Sensor 1 Circus High POTIS Inside Air Temperature (AT) Sensor 1 IntermittentEmate POTITE Engine Cookent Temperature Sensor 1 Circus Low P0118 Enone Coclant Temperature Sensor 1 Circuit High P0128 Coolars Thermostat (Coolars Temperature Below Thermostat Ringulating Temperature)
P0148 Fuel Ostivecy Error P0149 Fixed Terring Error P0168 Engine Fuel Temperature Too High P0181 Fuel Temperature Sensor A Circuit Range/Performance P0102 First Temperatura Sersor A Croux Low P0103 First Temperatura Sersor A Croux Low P0103 First Temperatura Sersor A Croux High P0103 First Rail Pressure Sersor A Croux Range Performance P0102 First Rail Pressure Sersor A Croux Low P0193 Fuel Rail Pressure Sensor A Circuit High P0194 Fuel Rail Pressure Sensor A Circuit In PO198 Engine Of Temperature Sensor Circuit Range/Performance P0197 Engine Oil Temperasine Sensor Circuit Low P0198 Engine Oil Temperasine Sensor Circuit High P0201 Inector Circus/Open - Cvinder P0202 Injector Crouk/Open - Cylinder 2 P0203 Injector Crouk/Open - Cylinder 3 P0204 Injector Circuit/Open - Cylinder 4 P0205 Injector Circuit/Open - Cylinder 5 P0208 irrector Circuit Open - Cylinder 6 Injector Circuit Open - Cylinder P0208 Insector Grout/Open - Cylinder 8 P0216 Injecto/Injecton Timing Control Grout P0219 Empire Overspeed Condition P0231 Fuel Purist Secondary Circuit Low Process Fuel Pump Secondary Cross High Process Fuel Pump Secondary Cross High Process Cylinder 1 Constitution Ballence Process Cylinder 2 Commission Ballence Process Cylinder 2 Commission Ballence P0269 Cvinder 3 Contribution/Safance P0272 Cylinder 4 Contribution/Extends P0275 Cylinder 5 Contribution/Extends P0278 Cylinder 5 Constitution/Estance P0281 Cylinder 7 Contribution/Balance P0784 CAnder 8 Contribution/Reterror Hudas Cyander 8 Commonsonissasinde R0297 Vehicle Overspeeld Condition R0298 Engine Oil Oversemperature Condition R020G Cylinder 1 Fuel Injection Offset Learning at Minimum Limit R020G Cylinder 1 Fuel Injection Offset Learning at Minimum Limit R020G Cylinder 1 Fuel Injection Offset Learning at Minimum Limit POZCE Cylinder 2 Fuel Injector Offset Learning at Minareum Limit POZCE Cylinder 2 Fuel Injector Offset Learning at Maximum Limit P02D0 Cylinder 3 Fuel Injector Offset Learning at Marriam Limit P0201 Cylinder 3 Fuel Injector Offsel Learning of Macmum Limit P0202 Cylinder 4 Fuel Injector Offsel Learning at Mannaum Limit P0203 Cylandia 4 Fuel Injector Citisal Learning at Materium Limit P0204 Cylandia 5 Fuel Injector Citisal Learning at Materium Limit P0205 Cylandia 5 Fuel Injector Citisal Learning at Materium Limit PCCDS Cylander 8 Fuel Injector Offset Learning at Manman Limit PCCD7 Cylinder 8 Fuel Injector Offset Learning at Manman Limit PCCD8 Cylander 7 Fuel Injector Offset Learning at Manman Limit PCCD8 Cylander 7 Fuel Injector Offset Learning at Manman Limit POZD9 Cylerow 7 Fuel Injector Ottset Learning at Minorman Limit POZDA Cylerder 8 Fuel Injector Ottset Learning at Minimum Limit POZDB Cylerder 8 Fuel Injector Ottset Learning at Minimum Limit P0300 Random Mistire Detected P0301 Cyloniar 1 Mastre Detected P0302 Cylinder 2 Mastire Detector P0301 Cylinder 3 Missire Detected P0304 Cylinder 4 Missire Detected F0306 Cylinder 5 Mistire Detacted F0303 Cylinder 5 Mistire Detacted POSST Cylinder 7 Mastre Detected P0309 Cvirvier 8 Missine Detector P0036 Crackshaft Position Sensor A Circuit Range/Parformance

P0337 Cranicihaf Poston Sansor A Circuil Low P0341 Carmhuff Poston Sensor A Circuil Range Portomiance (Bank 1 or Single Sensor) P0342 Carnstial Poston Sensor A Circuil Low (Bank 1 or Single Sensor) P1397 System Vokage Out Of SalkTest Range P1408 Exhaust Clas Recinculation (EGR) Flow Out Of SelkTest Range P1464 AC Dismand Out Of SelkTest Range POSIT Committed Protection Sensor A Carcian Plansporters amande (search 1 or carryler Sensor)
POSIT Glove PhypHelater Indicator Circuit
PO401 Euraust Gas Reconsisted (IEGR) Flow Insufficient Detected
PO402 Euraust Gas Reconsisted (IEGR) Flow Insufficient Detected
PO403 Euraust Gas Reconsisted (IEGR) Flow Excessive Detected
PO404 Enhant Gas Reconsisted (IEGR) Control Circuit
PO405 Euraust Gas Reconsisted (IEGR) Sensor A Circuit Flow
PO405 Euraust Gas Reconsisted (IEGR) Sensor A Circuit Flow
PO405 Euraust Gas Reconsisted (IEGR) Sensor A Circuit Flow
PO405 Exhaust Gas Reconsisted Temperature (IEGR) Sensor A Circuit Flow
PO405 Exhaust Gas Reconsisted Temperature (IEGR) Sensor A Circuit Flow
PO405 Exhaust Gas Reconsisted Temperature (IEGR) Sensor B Circuit Flow
PO415 Exhaust Gas Reconsisted Temperature (IEGR) Sensor B Circuit Flow
PO415 Exhaust Gas Reconsisted Temperature (IEGR) Sensor B Circuit Flow
PO415 Exhaust Gas Reconsisted Flow
PO410 Exhaust Gas Reconsisted Flow
PO410 Exhaust Gas Reconsisted Flow
PO420 Catalyst System Embourcy Below Treatheti (Bark 1)
PO42E Exhaust Gas Reconsisted (IEGR) Control Stack Open
PO412 Exhaust Gas Reconsisted (IEGR) Control Stack Closed
PO412 Exhaust Gas Reconsisted (IEGR) Po406 Flow
PO415 Exhaust Gas Reconsisted (IEGR) Po406 Flow
PO415 Exhaust Gas Reconsisted (IEGR)
PO416 Exhaust Gas Reconsisted (IEGR)
PO417 Exhaust Gas Reconsisted (IEGR)
PO418 Exhaust Gas Reconsisted (IEGR) P1501 Vervide Speed Sensor Out Of Set-Test Range F1531 Invalid Test-Accelerator Passe Movement F1531 Tread Test-Accelerator Pestal Movement.
P1530 Parking Brake Shech Circuit.
P1531 Cylinder's Injector Circuit Range-Performance.
P1532 Cylinder's Injector Circuit Range-Performance.
P1533 Cylinder's Injector Circuit Range-Performance.
P1533 Cylinder's Injector Circuit Range-Performance.
P1535 Cylinder's Injector Circuit Range-Performance.
P1535 Cylinder's Injector Circuit Range-Performance.
P1535 Cylinder's Injector Circuit Range-Performance. P1557 Cylinder 7 Injector Circuil Range Performance P1558 Cylinder 8 Injector Circuit Range Performance P1565 Electronic Throttle to PCM Communication Error P1986 Electrons Throste is PCM Communication Error
P1825 Internal Control Module PTO Performance
P1835 Trail-Ade Cut Of Acceptable Range
P1839 Vehicle ID Block Compted, Not Programmed
P1700 Brake Switch Out Of Self-Test Range
P1705 Train-masson Burge Circuit Not hindcating Park-Neutral During Self-Test
P1725 Insufficient Engine Speed Increase During Self-Test
P1726 Insufficient Engine Speed Command During Self-Test
P1736 Insufficient Engine Speed Command During Self-Test
P1736 Controller Aman Seed-ABS Virtuel Speed Comminion
P179A Controller Area Network (CAN) Engine Control Module (ECM)/Turbocharger Boost Controll Actuator Committed Self-Test
P1700 Dead Pagno Late Self-Efficiency Bellow Threshold (Edm)/Turbocharger Boost Controller Actuator Committed Pagno Late Self-Efficiency Bellow Threshold (Edm)/Turbocharger Boost Controller Actuator Committed Pagno Late Self-Efficiency Bellow Threshold (Edm)/Turbocharger Boost Controller Actuator Committed Pagno Late Self-Efficiency Bellow Threshold (Edm)/Turbocharger Boost Controller Actuator Committed Pagno Late Self-Efficiency Bellow Threshold (Edm) POWER Enhance Pressure Serior A Croux Projet
PO400 Fan 1 Control Croxat
PO408 Eshaust Gais Recensission (EGR) Throtile Control Croxat A Range/Performance
PO404 Fan Speed Low
PO404 Fan Speed Low
PO405 Pan Speed Regist
PO505 Vehicle Speed Serior A
PO505 Vehicle Speed Serior A
PO505 Vehicle Speed Serior Croxat
PO505 Pan Speed Serior Croxat
PO506 Fan Speed Serior Croxat No Signal
PO506 Fan Speed Serior Croxat No Signal
PO506 Pan Speed Serior Croxat International
PO506 Eshaust Gais Temperature Serior Croxat Low - Bank 1 Serior 1
PO506 Eshaust Gais Temperature Serior Croxat Low - Bank 1 Serior 1
PO506 Eshaust Gais Temperature Serior Croxat Low - Bank 1 Serior 1
PO506 System Vehicle High
PO506 System Vehicle High
PO506 Croxic Control OFF Signal
PO506 Croxic Control OFF Signal
PO506 Croxic Control SET Signal
PO506 Croxac Control SET Signal
PO506 Croxac Control SET Signal
PO506 Croxac Control SET Signal
PO507 Brike Switch A Crox A P1704 Controller Area Network (CAN) Empire Control Module (ECM)/Turbocharger Boo Actuator Carcus Mastanction
P2002 Desid Particulate Filter Efficiency Below Threshold (Bank 1)
P2003 Exhaust Gas Temperature Strong Crout Bank 1 Sensor 2
P2033 Exhaust Gas Temperature Sensor Crout Low Bank 1 Sensor 2
P2032 Exhaust Gas Temperature Sensor Crout High Bank 1 Sensor 2
P2033 Exhaust Gas Temperature Sensor Crout Renga-Performance Bank 1 Sensor 1
P2030 Exhaust Gas Temperature Sensor Crout Renga-Performance Bank 1 Sensor 1
P2031 Exhaust Gas Temperature Sensor Crout Renga-Performance Bank 1 Sensor 1
P2032 Exhaust Gas Temperature Sensor Crout I Internition Bank 1 Sensor 1
P2033 Exhaust Gas Temperature Sensor Crout Internition Bank 1 Sensor 2
P2035 Exhaust Gas Temperature Sensor 12 Combistion Bank 1
P2035 Exhaust Gas Temperature Sensor 13 Combistor Bank 1
P2036 Exhaust Gas Temperature Sensor 13 Combistor Bank 1
P2036 Exhaust Gas Temperature Sensor 13 Combistor Bank 1
P2036 Exhaust Gas Temperature Sensor 13 Combistor Bank 1
P2037 Exhaust Gas Temperature Sensor 13 Combistor Bank 1
P2038 Exhaust Gas Temperature Sensor 13 Combistor Bank 1
P2039 Exhaust Gas Temperature Sensor 13 Combistor Bank 1
P2039 Temperature Pessor Sensor Sensor Decoration Bank 1
P2030 Exhaust Gas Temperature Sensor Sensor Particle Forcust High P2133 Truction Pedal Postor Sensor Sensor Sensor Decoration P2134 Various Speed / Valued Speed Combistor P2138 Verbious Speed / Volunt Shatt Speed Combistor P2139 Valued Speed / Output Shatt Speed Combistor P2139 Valued Speed / O POS71 Brake Switch A Circuit POS00 Secul Communication List PCSC2 Powertrain Control Modula (PCM) Programming Error PCSC3 Informal Control Modula Keep Akve Memory (YAM) Error POSC4 Informal Control Modula Rendom Access Memory (RAM) Error POSOA Internal Control Module Random Accese Mensoy (RAM) Erro POSOS Internal Control Module Road Cnly Memory (RCM) Error POSOS Internal Control Module ATO Processing Prefermance POSOC Internal Control Module Main Processor Performance POSIO Control Module White Options Error POSIO Control Module White Options Error POSIO Internal Control Module Error POSIO Internal Control Module Engine RPM Performance POSIO Control Control Module Engine RPM Performance P2239 Barometric Pressure Circuit High
P2230 Barometric Pressure Circuit Historiotect

P2231 TurborSuper Charger Boost Pressure Not Detected — Mechanical
P2263 TurborSuper Charger Boost Pressure Not Detected — Mechanical
P2269 Water in Fuel Condoon
P2269 Water in Fuel Condoon
P2269 Water in Confed Pressure Too High- Engine Cfl
P2291 Injector Confed Pressure Too Low - Engine Carking
P2404 Edward Cark Temperature Service Circuit Barris 1 Service 3
P2404 Edward Cark Temperature Service Circuit Barris 1 Service 3
P2404 Edward Cark Temperature Service Circuit Barris 1 Service 3
P2404 Edward Cark Temperature Service Circuit Barris 1 Service 3
P2404 Edward Cark Temperature Service Circuit Barris 1
P2406 P2 POSIC Internal Control Modes of United Pro-POS25 Generator Firid Terminal Circuit Low POS25 Generator Firid Terminal Circuit Post POS27 Firid Pump A Control Circuit Control POS25 Firid Pump A Control Circuit Low P242A Edward Gas Temperature Sensor Circuit Sani, 1 Sensor 3
P242B Edward Gas Temperature Sensor Circuit Range/Performance Bank 1 Sensor 3
P242C Edward Gas Temperature Sensor Circuit Low Bank 1 Sensor 3
P242C Edward Gas Temperature Sensor Circuit Low Bank 1 Sensor 3
P242C Edward Gas Temperature Sensor Circuit High Bank 1 Sensor 3
P242C Desembland Gas Temperature Sensor Circuit Intermitiant/Edmard 1 Sensor 3
P242F Desembland Edward Edward Performation P244A Desembland Februari Temperature Too Low For Particulates Filter Registromation. Bank 1
P244D Edward Temperature Too High For Particulates Filter Registromation. Bank 1
P244D Edward Temperature Too High For Particulates Filter Registromation. Bank 1
P2452 Desembland Edward Temperature Sensor A Circuit Range Particulates Filter Pressure Sensor A Circuit Range Particulates Filter Pressure Sensor A Circuit High
P2453 Desembland Edward Filter Pressure Sensor A Circuit High
P2453 Desembland Edward Filter Pressure Sensor A Circuit High
P2453 Desembland Edward Filter Pressure Sensor A Circuit High
P2455 Desembland Edward Filter Pressure Sensor A Circuit High
P2455 Desembland Edward Filter Pressure Sensor A Circuit High
P2455 Desembland Edward Filter Pressure Sensor A Circuit High P2455 Desembland Edward Filter Pressure Sensor A Circuit High P2455 Desembland Edward Filter Pressure Sensor A Circuit High P2455 Desembland Edward Filter Pressure Sensor A Circuit High P2455 Desembland Edward Filter Pressure Sensor A Circuit High P2455 Desembland Edward Filter Pressure Sensor A Circuit High P2455 Desembland Edward Filter Pressure Sensor A Circuit High P2455 Desembland Edward Filter Pressure Sensor A Circuit High P2455 Desembland Edward Filter P2455 Desembland Edward Fil POS2F First Pump A Control Croat Low
POS2F First Pump A Control Croat High
POS2F First Pump A Control Croat High
POS2F First Reference Count Partmens Bank 1
POS2F First Reference Votage A Croat Low
POS2F First Reference Votage A Croat Low
POS2F Sensor Reference Votage B Croat Low
POS3F Sensor Reference Votage B Croat First
POS3F Cylander I Clow Plug Croat Cyben
POS3F Cylander I Control Croat Figh PANSO Deser Particates Free Pressure Serior Auriturinament PASS Editats Gas Recrudation (EGR) Code System Performance PASS Best Particulate Fifter Regeneration Duration PASS Deser Particulate Fifter Regeneration Europeancy PASS Deser Particulate Fifter Regeneration Frequency PASS Deser Particulate Fifter - Soct Accumulation PARCO Detail Particulars Fiber Respitation - Forcind Limited Power
P2545 Crossel Particulars Fiber Respitation - Forcind Limited Power
P2545 Tetrous Management Respitation Sentent A Circuit Range Performance
P2540 Tuttordranger Boost Control Position Sentent A Circuit Range Performance
P2540 Exercine Control Medida ((COM) Powertrain Control Medida ((PCM) Inserted Engine Off Timer FOGE) Fan I Contril Croux Low
FOGE2 Fan I Control Croux High
PO703 Brake Switch B Input Circust
PO704 Culcin Switch Binput Circust
POX09 COCO Consense Steam Croux Low
FOX10 DODG Connected Steam Croux High
P1000 Cn-Board Diagnostic (CRD) Systems Readness Test Not Complice
P1102 Mass Air Flow General In Range But Higher Than Expected
P1103 Mass Air Flow General In Range But Higher Than Expected
P1101 Steam Parks Contrained to Contrained to Contrained to Sus A Off 19073 Control Module (TCM) 19073 Control Module (TCM) 19073 Lost Contrained to With Transmission Control Module (TCM) 19073 Lost Contrained to With The Anti-lock Braile System (RES) Control Module 190737 Lost Communication With Traiter Braile Control Module 190737 Lost Communication With Restaurts Control Module (RCM) 19073 Lost Contrained to With Instrument Panel Cluster (CC) Control Module P1103 Mass & Flow Sensor in Range Ball Higher Than Expected
P1111 System Plast
P1115 Low Fluid Level - Forcad Limited Power
P1117 Exhaust Gas Temperature Sensor Genelation - Bank 1
P1117 Fluid Pressure Regulation Control Expected Liverang Limits
P1164 Engine Oli Temperature Sensor Oct Of Self-Tist Range
P1207 Fluid Pressure Regulator Expessive Variation
P1207 Cold Start Tube President - Forcad Limited Power
P1200 Their Detected, Vehicle Immediated
P1217 Alpoted KOER - Fluid Pressure Flature
P1328 Tuberturner/Suspension page 60 each of Experience P122A Abdition August Presentary and Production Application (P122A TutocharperSuperinary) Bood Control A Electrical Publication (P122B TutocharperSuperinary) Bood Control A Vettings (P122C TutocharperSuperinary) Bood Control A Vettings (P122C TutocharperSuperinary) Bood Control A Vettings (P122C TutocharperSuperinary) P122C Entered (P122C TutocharperSuperinary) P122C Entered (P122C TutocharperSuperinary) P122C Entered (P122C Tutocharper) P122C P1336 CrankshaftCananat Sensor Range Performance P1380 Turbocharger Boset Control A Temperature Too High

VOIGE PROMPT

MENU FLOW CHART

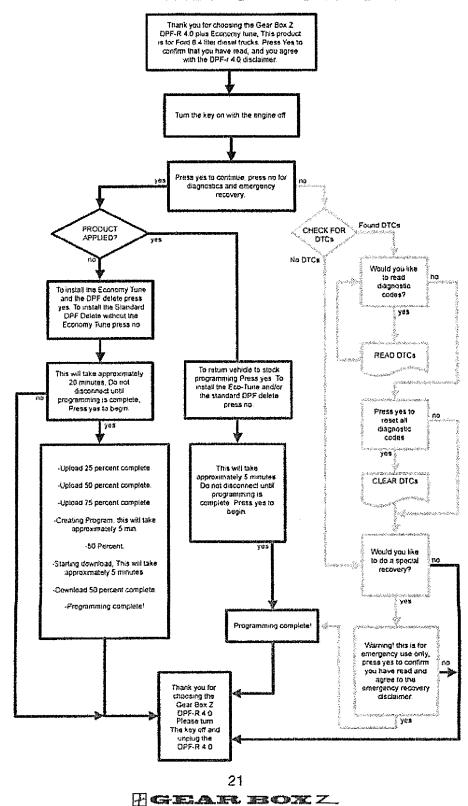


EXHIBIT C

Case 3:20-cv-08003-JJT Document 37-1 Filed 08/20/20 Page 49 of 74

From: Galer, Rose </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=40D0B0FE2FAF4253AB72A2F953C68B85-

GALER, ROSE>

To: matt@barlowlawgroup.com

CC: Bickmore, Ryan **Sent:** 7/24/2017 2:58:02 PM

Subject: Gear Box Z's Response to EPA's Information Request

Mr. Barlow,

We have received Gear Box Z's response to our information request and are currently reviewing the information. The materials frequently refer to "Maintenance Mode," and we would like to know more about its purpose and function. Specifically:

- 1. Are all of the tuners listed in Table 2 equipped with Maintenance Mode when they are purchased from the supplier or is that a feature that Gear Box Z adds?
- 2. Who developed the Maintenance Mode calibration?
- 3. Provide a more detailed description of how Maintenance Mode works, including how it prevents diagnostic trouble codes or interferes with the vehicle OBD system's ability to detect non-functioning or missing emission related parts.
- 4. Provide the Maintenance Mode Description sheet noted at the bottom of Table 2.

Please do not hesitate to reach out if you have any questions about this follow-up request.

Thank you, Rose Galer Air & TRI Section Enforcement Division EPA Region 9 - San Francisco 415-947-4289 Office

EXHIBIT D

hin Barlow Law Firm !

HC 65 Box 537 3285 S. Hwy 389, #101 Fredonia, AZ 86022 (602) 461-8863 matt@barlowlawgroup.com

August 25, 2107

VIA CERTIFIED MAIL

Matt Salazar, Manager, Air Enforcement Office Enforcement Division Attn: Rose Galer, Environmental Protection Specialist U.S. Environmental Protection Agency, Region IX 75 Hawthorne St. (ENF-2-1) San Francisco, CA 94105

Re: IN THE MATTER OF GEAR BOX Z, INC. Response to Email Dated July 24, 2017.

Rose Galer:

Please see the following responses to each question:

1. Are all of the tuners listed in Table 2 equipped with Maintenance Mode when they are purchased from the supplier or is that a feature that Gear Box Z adds?

RESPONSE: Maintenance Mode is a feature that is added by Gear Box Z.

2. Who developed the Maintenance Mode calibration?

RESPONSE: The Maintenance Mode calibration is developed by Gear Box Z.

3. Provide a more detailed description of how the Maintenance Mode works, including how it prevents diagnostic trouble codes or interferes with the vehicle OBD system's ability to detect non-functioning or missing related parts.

RESPONSE:

(a) Maintenance Mode is not permanent and is fully reversible back to the condition as intended by the original equipment manufacturer ("OEM"). Maintenance Mode is designed to assist maintenance departments to repair, maintain and clean the vehicle's

emission systems. Maintenance Mode is further designed to maintain the vehicle safely after the vehicle's original emission system has failed.

- (b) The Maintenance Mode feature does not prevent diagnostic trouble codes.
- (c) The Maintenance Mode feature does not interfere with the vehicle OBD system's ability to detect non-functioning or missing related parts.
- 4. Provide the Maintenance Mode Description sheet noted at the bottom of Table 2.

RESPONSE: See attachment marked "Maintenance Mode Description."

Please let me know if you need anything else to assist you in your Request For Information. You may contact me by the email provided above.

Respectfully,

Muth Men Matthew I. Barlow,

The Barlow Law Firm, LLC

cc: Ryan Bickmore

Maintenance Mode Description

Gear Box Z Electron EM 1.0 User Manual

Plugging In the Unit

Locate the OBD II port below the steering wheel at the driver's seat. Remove the OBD II to mini USB cord from the package. Use it to connect the Electron EM 1.0 to the OBD II port. Turn the key on, with the engine off. The unit will power up automatically.

The Boot-up Screen

The first screen to appear will be a 'Check System' screen, which will check its own physical hardware, including the SD card. This screen will also load the Electron's firmware, or operating system, and briefly display the serial number to the unit. The screen will then show the Gear Box Z logo, and once again the serial number, along with the version number of the operating system while playing a sound effect. For a short amount of time, it will indicate that the product is searching for a vehicle while displaying a pair of gears near the top right corner. Then the 'Vehicle' page from the main menu will appear. You can visit this page and view the information displayed here later. Then the Main Menu will appear.

Introduction to the Main Menu

The Main Menu will appear after the 'Vehicle' page is displayed briefly whenever the Electron boots up. All features except Emergency Recovery are accessed through this Main Menu. If the Main Menu is left for several seconds, it will open 'Gauges' automatically. This is the icon found in the top left position of the Main Menu. The Main Menu can be opened from anywhere, by selecting an "Exit" button until it appears, selecting a "Menu" button, or touching the center of the screen, depending on what window or page is open. The options available at the Main Menu are 'Gauges,' 'Add-ons,' 'Info,' 'Codes,' 'Vehicle,' and 'Configuration.' The Electron's serial number and its current firmware version number are also displayed at the bottom of the menu.

'Gauges'

When the 'Gauges' option is either selected from the Main Menu, or opens on its own by default, the 'Dash' screen is displayed first. This screen has a large dial and digital speedometer in the middle to left side of the screen, with a list of other vehicle gauges displayed on the right side of the screen. Below the speedometer there and icon that looks like a graph and next to it is Add-On Specific controls or gauges. The graph icon opens more custom gauge screens. There

are tabs along the bottom of the screen in this menu which can be selected and displayed at will. All of these gauges are customizable using Electron Gauge Designer.

'Add-ons'

The Electron has the option for 'Add Ons' that can be tools or vehicle software changes. These 'add ons' can allow you to change vehicle specific parameters or implement vehicle software changes for improving things like: engine performance, better fuel mileage or help facilitate maintenance of your vehicle's systems. Having add-ons is not required for using the Electron. Add-ons are purchased as a separate software item from Gear Box Z. Some Add-Ons my require you to agree to a disclaimer in order to use that Add-on. You must agree to the disclaimers for the Electron EM 1.0 also.

Gathering Information

When the 'Add-ons' icon is selected from the menu for the first time, the Electron will ask for permission to gather information from the vehicle's computer. Selecting yes will start the process of gathering data. Selecting no will return to the Main Menu. Once the 'Gathering Information' process has started, it will take approximately 15 to 20 minutes to complete. The Electron will display a percentage to completion during the process, and an animation of a pair of gears near the top right corner of the screen will indicate that the process is working. Please note that you may need to wait for a few seconds to a minute after the screen indicates 100% to open the list of purchased add-ons.

After the list of add-ons appears, there will still be a 'Gather' button in the center of the bottom of the screen. This is available so that if there is some new software or features on the vehicle in the future, the 'Gathering Information' process can be repeated and keep the Electron up to date.

Please refer to the specific user manual for each add-on, included with the Electron if they have been purchased at the same time.

Installing Add-ons in the Correct Order

When the list of add-ons appears, there will be a button next to each one to select in order to install. It is important to note, however, that if you have the "Maintenance" add-on, that this must be installed last. If it is installed first, then all other add-ons will not be able to install until after it has been uninstalled. Other add-ons may be installed with the "Maintenance" add-on, but they must be installed first.

The 'Settings' Add-on

This add-on does not change the programming the vehicles computer. It is used to change the given tire size so the speedometer will calculate travel speed correctly. It also allows the user

to change the speed limiter, setting the speed at which the governor will stop acceleration. These settings will be reset every time other add-ons are installed. This means that changes to the 'Settings' add-on should be done after all other add-ons have been programmed, including the "Maintenance" add-on.

Return to Stock Feature

The 'Return to Stock' button is on the bottom left of the screen when the 'Add-ons' window is opened. Selecting this will restore the vehicle to the original manufacturer's programming. This feature makes the Electron Add-Ons fully reversible.

'Info'

This page shows how many add-ons have been installed and activated, as well as the serial number and firmware version number. This screen is very useful when talking to technical support from Gear Box Z Inc., available by calling 877-217-1911.

'Codes'

This window is used to display and clear DTCs, or Diagnostic Trouble Codes. If any codes are present, a 'display' button will appear near the top right corner of the screen. After selecting this, the number and description of each code will be displayed. If the codes fill more than one page, a 'more' button will appear at the bottom right of the screen. If not, then a clear button will be in this position. If the codes fill more than one page, select the 'more' button until you reach the last page in order to find the 'clear' button. There will always be an 'exit' button available on every page. If there are no codes to clear, or if you have cleared the codes, it will be the only option in the window to select. Included with the Electron is a booklet which contains a list of known DTCs.

'Vehicle'

This page is displayed briefly each time the Electron is plugged into the vehicle. This page serves to quickly and conveniently display information about the vehicle. It includes the year, make, model, engine, a calibration number (CAL), a transmission control module number (TCM), a vehicle code (CODE), an install code, and the VIN number at the bottom.

'Configuration'

The 'Config' icon on the Main Menu will take you to another menu that provides user changeable settings for the Electron. These include settings for the display, the audio, general, and a simplified manual within the Electron.

Display

In the 'display' window there is a slider on the right side of the screen which changes the sensitivity of the light sensor which changes the screen to "Night Mode" when the surroundings become dark. (The purpose of this feature is to make so that the screen is not too bright and distracting to the driver if the Electron is mounted on the dash or console in the interior of the vehicle.) Move the slider back and forth to find the brightness that is best for switching from "Day Mode" to "Night Mode."

On the left side of the 'display' window there are buttons for changing how bright the "Night Mode" will be when low light levels are detected. Whichever button has been selected last will be the brightness of "Night Mode." Please beware that the 'Low' setting will make the screen very difficult to see if the Electron is not in a dark location.

Audio

In the 'audio' window there are options for turning on vibrate mode. When this is turned on, the electron will vibrate whenever a button is clicked on the screen. Selecting the 'vibrate' button toggles this option on and off. There are also 'up' and 'down' buttons for controlling the volume of the audio played by the Electron. This will change how loud the high and low warnings will be for the gauges that the Electron displays.

General

This window currently has no alterable settings. It exists for future updates which will allow customized startup animations and illustrations, as well as sound effects.

Emergency Recovery

There are many unfortunate conditions which can occur that may cause the vehicle's computer to have its programming become unreadable. This condition is sometimes called "corrupted," "scrambled," "bricked," or "blanked." When this occurs, the vehicle will not start, and may show various alarming symptoms, such as a flashing anti-theft light in the console. Fortunately, the Gear Box Z Electron EM 1.0 can resolve this issue. When the vehicle has been "bricked," the Electron will display a message upon startup saying "searching for vehicle" and "please turn the key on." There will also be a pair of gears visible in the top left corner of the screen. The Electron will not leave this screen. The solution is to select the gears. When the gears have been selected, a prompt will appear which will say "Would You Like to do any Emergency recovery?" To perform the recovery, select 'yes.' Selecting 'no' will put the Electron in mass storage device mode. This feature is for use with the Electron Gauge Designer software. After selecting 'yes,' a list of available recovery files will appear. If you have used the Electron unit before, select 'Last Vehicle.' This file will have the VIN number to the right of the button. After selecting a recovery file, an installation window will appear, which will read "Returning Stock... This will take a few minutes. Please wait..." and will display the VIN number of the file being installed. The window will indicate the progress of the installation with a '% Done' field. The

installation must not be interrupted until complete. If the installation is interrupted, the Emergency Recovery must start over. After the recovery has been completed, a screen will appear that says "RECOVERY Successful." The screen will remain for a brief moment before the Electron reboots itself. After the reboot, the Electron and the truck should be restored to its last condition before an interruption occurred.

Installing Firmware Updates

Gear Box Z Inc. is constantly working to improve the performance of the Electron EM 1.0, and add new and powerful features. Whenever a new update to the firmware is released, it can be easily installed by the user. The current method of checking for available updates is to call Gear Box Z at 877-217-1911.

When a firmware update has become available, it is installed through the micro SD card. The files that will be needed to perform the update are:

- info.dat The file that is sent to Gear Box Z Inc. to quickly allow updating options on the Electron.
- GBZFIRMW.BIN (It does not need to be renamed. Just copy it to the SD card. Do NOT place this file in any folder. The name cannot be changed...)

The steps to performing the update are:

- Unplug the Electron from the vehicle.
- Remove the SD card from the Electron. This is located in a small slot on the side, and is removed by gently pressing the card inward until it clicks, and then allowed to spring outwards.
- Put the SD card into a micro SD card adapter (which is included with the Electron, although any good quality adapter will work) and plug the adapter into a PC.
- Download firmware file and any additional files provided by Gear Box Z Inc. for updating firmware.
- Copy the firmware file to the SD card and unzip any other files to the SD card in the correct folders as specified by GearBoxZ Inc.
- Safely remove the SD card adapter from the PC, and carefully install the SD card back into the Electron, once again by gently pressing it inwards inside the slot until it clicks and locks in place.
- Plug the Electron back into the vehicle.

• The electron will check the files when it boots up, and will automatically update its own firmware.

If the SD card is lost or damaged, please contact Gear Box Z tech support, and have the serial number to the Electron unit available. If you have any other further questions, call Gear Box Z tech support at 877-217-1911.

EXHIBIT E

Case 3:20-cv-08003-JJT Document 37-1 Filed 08/20/20 Page 61 of 74

From: Galer, Rose </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=40D0B0FE2FAF4253AB72A2F953C68B85-

GALER, ROSE>

To: matt@barlowlawgroup.com

CC: Bickmore, Ryan **Sent:** 9/7/2017 3:27:32 PM

Subject: RE: Gear Box Z's Response to EPA's Information Request

Mr. Barlow,

Thank you for providing responses to our follow-up questions regarding the "Maintenance Mode" offered on tuners sold by Gear Box Z. We have a few additional questions regarding the Maintenance Mode at this time.

- 1. The user manual for the Gear Box Z Electron EM 1.0 references the fact that the tuner can display and clear diagnostic trouble codes (DTC). When a user clears trouble codes, are the trouble codes cleared permanently (i.e., the trouble code will not re-appear unless the user returns the vehicle to the stock OEM configuration or installs another tune) or are they only cleared temporarily (i.e., the code will only be cleared for the duration the vehicle remains on and the trouble code will re-appear the next time the user starts the vehicle)?
- 2. When a user installs Maintenance Mode, are any of the trouble codes pre-cleared?
- 3. If a user installs Maintenance Mode and then installs a test exhaust pipe without a catalyst, will any trouble codes associated with a missing catalyst appear when the user next starts the vehicle?

After we have received responses to these follow-up questions, we would like to schedule a call with you and your client to discuss Gear Box Z's response to our information request.

Please let me know if you have any questions.

Best, Rose Galer Air & TRI Section Enforcement Division EPA Region 9 - San Francisco 415-947-4289 Office

From: matt@barlowlawgroup.com [mailto:matt@barlowlawgroup.com]

Sent: Wednesday, August 16, 2017 5:51 PM **To:** Galer, Rose < Galer.Rose@epa.gov>

Subject: RE: Gear Box Z's Response to EPA's Information Request

Rose,

I will have them to you before the end of next week.

Thanks, Matt Case 3:20-cv-08003-JJT Document 37-1 Filed 08/20/20 Page 62 of 74

THE BARLOW LAW FIRM, LLC

HC 65 Box 537

3285 S. Hwy 389, #101

Fredonia, Arizona 86022

Office: 602-461-8863 Cell: 435-632-1525

Email: matt@barlowlawgroup.com Web: www.barlowlawgroup.com

CONFIDENTIALITY NOTICE: This transmission is intended for the sole use of the individual or entity to whom it is addressed and may contain information that is confidential, attorney-client privileged, or otherwise exempt, by law, from disclosure. Any dissemination, distribution, copying, or taking of any action in reliance on the contents of this transmission, by someone other than the intended addressee or its authorized agent is strictly prohibited. If you have received this transmission in error, please notify the law firm of The Barlow Law Firm immediately at the telephone number listed above, or by reply to this transmission.

----- Original Message -----

Subject: RE: Gear Box Z's Response to EPA's Information Request

From: "Galer, Rose" < Galer.Rose@epa.gov > Date: Wed, August 16, 2017 4:24 pm

To: "matt@barlowlawgroup.com" < matt@barlowlawgroup.com >

Cc: "Bickmore, Ryan" < bickmore.ryan@epa.gov >

Mr. Barlow-

Do you have a status update on your responses to the follow-up request below?

Thanks, Rose Galer Air & TRI Section Enforcement Division EPA Region 9 - San Francisco 415-947-4289 Office

From: matt@barlowlawgroup.com [mailto:matt@barlowlawgroup.com]

Sent: Monday, July 24, 2017 12:34 PM To: Galer, Rose < Galer. Rose@epa.gov >

Subject: RE: Gear Box Z's Response to EPA's Information Request

Rose,

I forwarded the questions to my client. I will provide answers as soon as my client gets back with me.

Thank you, Matt Barlow



Case 3:20-cv-08003-JJT Document 37-1 Filed 08/20/20 Page 63 of 74

3285 S. Hwy 389, #101 Fredonia, Arizona 86022 Office: 602-461-8863

Cell: 435-632-1525

Email: matt@barlowlawgroup.com Web: www.barlowlawgroup.com

CONFIDENTIALITY NOTICE: This transmission is intended for the sole use of the individual or entity to whom it is addressed and may contain information that is confidential, attorney-client privileged, or otherwise exempt, by law, from disclosure. Any dissemination, distribution, copying, or taking of any action in reliance on the contents of this transmission, by someone other than the intended addressee or its authorized agent is strictly prohibited. If you have received this transmission in error, please notify the law firm of The Barlow Law Firm immediately at the telephone number listed above, or by reply to this transmission.

----- Original Message -----

Subject: Gear Box Z's Response to EPA's Information Request

From: "Galer, Rose" < Galer.Rose@epa.gov >

Date: Mon, July 24, 2017 11:58 am

To: "matt@barlowlawgroup.com" < matt@barlowlawgroup.com >

Cc: "Bickmore, Ryan" < bickmore.ryan@epa.gov >

Mr. Barlow,

We have received Gear Box Z's response to our information request and are currently reviewing the information. The materials frequently refer to "Maintenance Mode," and we would like to know more about its purpose and function. Specifically:

- 1. Are all of the tuners listed in Table 2 equipped with Maintenance Mode when they are purchased from the supplier or is that a feature that Gear Box Z adds?
- 2. Who developed the Maintenance Mode calibration?
- 3. Provide a more detailed description of how Maintenance Mode works, including how it prevents diagnostic trouble codes or interferes with the vehicle OBD system's ability to detect non-functioning or missing emission related parts.
- 4. Provide the Maintenance Mode Description sheet noted at the bottom of Table 2.

Please do not hesitate to reach out if you have any questions about this follow-up request.

Thank you, Rose Galer Air & TRI Section **Enforcement Division** EPA Region 9 - San Francisco 415-947-4289 Office

EXHIBIT F



HC 65 Box 537 3285 S. Hwy 389, #101 Fredonia, AZ 86022 (602) 461-8863 matt@barlowlawgroup.com

September 22, 2107

VIA E-MAIL

Matt Salazar, Manager, Air Enforcement Office Enforcement Division Attn: Rose Galer, Environmental Protection Specialist U.S. Environmental Protection Agency, Region IX 75 Hawthorne St. (ENF-2-1) San Francisco, CA 94105

Re: IN THE MATTER OF GEAR BOX Z, INC. Response to Email Dated September 7, 2017.

Rose Galer:

Please see the following responses to each question:

1. The user manual for the Gear Box Z Electron EM 1.0 references the fact that the tuner can display and clear diagnostic trouble codes (DTC). When a user clears trouble codes, are the trouble codes cleared permanently (i.e., the trouble code will not re-appear unless the user returns the vehicle to the stock OEM configuration or installs another tune) or are they only cleared temporarily (i.e., the code will only be cleared for the duration the vehicle remains on and the trouble code will re-appear the next time the user starts the vehicle)?

RESPONSE: When a user clears a trouble code, the codes are only temporarily cleared. If the trouble occurs again or still remains, the trouble code will come back.

2. When a user installs Maintenance Mode, are any of the trouble codes pre-cleared?

RESPONSE: Any clearing of trouble codes are temporary. If the trouble exists after clearing, the trouble codes will come back.

3. If a user installs Maintenance Mode and then installs a test exhaust pipe without a catalyst, will any trouble codes associated with a missing catalyst appear when the user next starts the vehicle?

RESPONSE: Maintenance Mode and the test exhaust pipe do not modify anything on the catalyst.

Please let me know if you need anything else to assist you in your Request For Information. You may contact me by the email provided above. Let me know when you would like to schedule a conference call with my client and I to discuss the response to your information request.

Respectfully,

Matthew I. Barlow, The Barlow Law Firm, LLC

cc: Ryan Bickmore

EXHIBIT G



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION IX 75 Hawthorne Street San Francisco, CA 94105-3901

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

7016 1370 0000 0749 1224

Jerry Black, Owner Gear Box Z, Inc. 55 North Pioneer St. #2246 Colorado City, AZ 86021

Agent for Service of Process: Incorp Services Inc. 2233 W Royal Palm Rd, Suite J Phoenix, AZ 85021

Re: Notice of Violation of the Clean Air Act

Mr. Black:

The United States Environmental Protection Agency has investigated and continues to investigate Gear Box Z, Inc. ("Gear Box Z") for compliance with the Clean Air Act ("CAA" or "the Act"), 42 U.S.C. §§ 7401–7671q, and its implementing regulations. As summarized in this Notice of Violation, the EPA has determined that Gear Box Z manufactured and sold parts or components for motor vehicles and motor vehicle engines that bypass, defeat, or render inoperative elements of design that were installed by the original equipment manufacturer in order to comply with CAA emission standards, and knew or should have known that these parts or components were for such use or put to such use. Therefore, Gear Box Z has violated Section 203(a)(3)(B) of the Act, 42 U.S.C. § 7522(a)(3)(B).

Law Governing Alleged Violations

This Notice of Violation arises under Part A of Title II of the Act, 42 U.S.C. §§ 7521–7554, and the regulations promulgated thereunder. These laws were enacted to reduce air pollution from mobile sources of air pollution. In creating the Act, Congress found, in part, that "the increasing use of motor vehicles . . . has resulted in mounting dangers to the public health and welfare." Congress' purpose in creating the Act, in part, was "to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population," and "to initiate and

CAA § 101(a)(2), 42 U.S.C. § 7401(a)(2).

accelerate a national research and development program to achieve the prevention and control of air pollution."²

The EPA's allegations here concern parts or components for motor vehicles and engines subject to emission standards.³ The Act requires the EPA to prescribe and revise, by regulation, standards applicable to the emission of any air pollutant from new motor vehicles or engines that cause or contribute to air pollution, which may reasonably be anticipated to endanger public health or welfare.⁴ As required by the Act, the emission standards "reflect the greatest degree of emission reduction achievable through the application of [available] technology." Motor vehicles and engines are subject to specific emission standards for each pollutant, based on a vehicle's or engine's class and model year.⁶

Vehicle and engine manufacturers employ many devices and elements of design to meet emission standards. *Element of design* means "any control system (i.e., computer software, electronic control system, emission control system, computer logic), and/or control system calibrations, and/or the results of systems interaction, and/or hardware items on a motor vehicle or motor vehicle engine." For example, manufacturers employ retarded fuel injection timing as a primary emission control device for emissions of oxides of nitrogen ("NOx"). Manufacturers also employ certain hardware devices as emission control systems to manage and treat exhaust to reduce levels of regulated pollutants from being created or emitted into the ambient air. Such devices include diesel particulate filters ("DPFs"), exhaust gas recirculation ("EGR"), diesel oxidation catalysts ("DOC"), nitrogen oxide absorbing catalysts ("NAC"), and selective catalytic reduction ("SCR"). Modern vehicles and engines are equipped with electronic control modules ("ECMs"). ECMs continuously monitor engine and other operating parameters and control the emission control devices, such as the fueling strategy.

Manufacturers further employ onboard diagnostics, or "OBD," which is comprised of systems that monitor components that can affect the emission performance of a motor vehicle, detect problems with the vehicle's emission-related systems that could cause the vehicle to fail to comply with the CAA's emission standards, alert drivers to these problems, and store electronically-generated malfunction information. If a problem is detected, the OBD system illuminates a warning lamp on the vehicle instrument panel to alert the driver. Given these functions, the OBD is part of a motor vehicle's emission control system.

To ensure that every new motor vehicle or engine legally sold, offered for sale, imported, delivered for introduction into commerce, or introduced into commerce in the United States (collectively, "introduced into commerce") satisfies applicable emission standards, the EPA implements a certification program. Under this program, the EPA issues certificates of conformity ("COCs"), thereby qualifying motor vehicles and engines for introduction into commerce. To obtain a COC, an OEM must submit a COC

² CAA § 101(b)(1)–(2), 42 U.S.C. § 7401(b)(1)–(2).

³ See generally 40 C.F.R. Part 86, Subpart A (setting emission standards for these categories).

⁴ CAA § 202(a)(1) and (3)(B), 42 U.S.C. § 7521(a)(1) and (3)(B).

⁵ CAA § 202(a)(3)(A)(i), 42 U.S.C. § 7521(a)(3)(A)(i).

⁶ See, e.g., heavy-duty diesel engine emission standards at 40 C.F.R. §§ 86.004-11, 86.007-11, 86.099-11 and light-duty vehicle emission standards at 40 C.F.R. § 86.1811-04. See also 40 C.F.R. §§ 86.090-8 (1990 and later model year light-duty vehicles); 86.094-9 (1994 and later model year light-duty trucks); 86.001-9 (2001 and later model year light-duty trucks); 86.004-9 (2004 and later model year light-duty trucks); 86.091-10 (1991 and later model year Otto-cycle heavy-duty engines and vehicles); 86.008-10 (2008 and later model year Otto-cycle heavy-duty engines and vehicles).

7 40 C.F.R. § 86.094-2.

⁸ See CAA § 202(m), 42 U.S.C. § 7521(m), requiring EPA to promulgate regulations requiring OBD systems for motor vehicles after 2007. See also 40 C.F.R. §§ 86.005-17, 86.007-17, 86.1806-05, and 86.1806-17.

⁹ 40 C.F.R. § 86.007-30.

application to the EPA for each engine family and each model year in which it intends to manufacture or import motor vehicles or engines for introduction into commerce. The COC application must include, among other things, identification of the covered engine family, a description of the motor vehicle or engine and its emission control systems, all auxiliary emission control devices ("AECDs")¹⁰ and the engine parameters they sense, as well as test results from a test vehicle or engine showing that it satisfies the applicable emission standards.¹¹

The Act makes it a violation "for any person to remove or render inoperative any device or element of design installed [by an original equipment manufacturer ("OEM")] on or in a motor vehicle or motor vehicle engine in compliance with regulations under this subchapter prior to its sale and delivery to the ultimate purchaser, or for any person knowingly to remove or render inoperative any such device or element of design after such sale and delivery to the ultimate purchaser." It is also a violation to cause any of the foregoing acts. ¹³

In addition, the Act makes it a violation "for any person to manufacture or sell, or offer to sell, or install, any part or component intended for use with, or as part of, any motor vehicle or motor vehicle engine, where a principal effect of the part or component is to bypass, defeat, or render inoperative any device or element of design installed on or in a motor vehicle or motor vehicle engine in compliance with regulations under this subchapter, and where the person knows or should know that such part or component is being offered for sale or installed for such use or put to such use." ¹⁴ It is also a violation to cause any of the foregoing acts. ¹⁵

Alleged Violations

Based on Gear Box Z's responses to the EPA's information request dated April 24, 2017, issued pursuant to Section 208(a) of the CAA ("Information Request"), the EPA has determined that Gear Box Z manufactured, offered for sale, and/or sold, from January 1, 2015 to April 24, 2017, hardware and software designed for use on motor vehicles or engines, primarily light-duty and light heavy-duty diesel trucks and engines, manufactured by entities such as Cummins Inc. ("Cummins"); FCA US LLC and its predecessors ("FCA"); General Motors Co. ("GM"); and Ford Motor Co. ("Ford"). Gear Box Z manufactured and/or sold three main categories of "defeat device" products: exhaust replacement pipes; EGR block plates; and tuners packaged with DPF emulators.

¹⁰ An AECD is "any element of design which senses temperature, vehicle speed, engine RPM, transmission gear, manifold vacuum, or any other parameter for the purpose of activating, modulating, delaying, or deactivating the operation of any part of the emission control system." 40 C.F.R. § 86.082-2.

^{11 40} C.F.R. §§ 86.004-21, 86.007-21, 86.094-21, 86.096-21; see also EPA, Advisory Circular Number 24-3: Implementation of Requirements Prohibiting Defeat Devices for On-Highway Heavy-Duty Engines (Jan. 19, 2001).

¹² CAA § 203(a)(3)(A), 42 U.S.C. § 7522(a)(3)(A).

¹³ CAA § 203(a), 42 U.S.C. § 7522(a).

¹⁴ CAA § 203(a)(3)(B), 42 U.S.C. § 7522(a)(3)(B).

¹⁵ CAA § 203(a), 42 U.S.C. § 7522(a).

The EPA's findings regarding Gear Box Z's manufacture and/or sale of defeat devices from January 1, 2015 to April 24, 2017 are identified in the table below:

| Defeat Device Product | Gear Box Z's Product Name/Number | Effect on Motor Vehicle and Engine Emission Control Systems and Elements of Design | Approximate Quantity of Defeat Device Products Sold |
|---|--|---|---|
| Exhaust Replacement Pipes for Ford, GM, and Dodge Diesel Trucks | AFEGMP4F, AFEFP4F, AFEDP4F, AFEDPCC, AFEDP, AFEDP2, AFEFP, AFEFP2, AFEGMP-CCLB, AFEGMP-CCSB, AFEGMP-ECSB | Remove or bypass DOC, DPF, NAC, and/or SCR systems. | 129 |
| EGR Block Plates for Ford Diesel 6.4L Trucks | GBZ-FBP | Disable and/or bypass EGR systems. | 866 |
| Programmer/Tuner with DPF Emulators for Dodge Diesel 6.7L Trucks | GBZ-DD30 | Enable removal of DPF without illuminating a malfunction indicator lamp ("MIL"), prompting any diagnostic trouble code ("DTC"), or causing any engine derating. | 656 |
| | | TOTAL | 1,651 |

A principal effect of these products is to bypass, defeat, or render inoperative elements of the design that control emissions of regulated air pollutants. The exhaust replacement pipes and EGR block plates are designed to remove or bypass emission control hardware (including DOC, DPF, NAC, EGR and/or SCR systems), which are elements of design that manufacturers employ to meet emission standards. Similarly, the tuners and DPF emulators manufactured and sold by Gear Box Z enable removal of DPFs without illuminating a MIL, prompting any DTCs, or causing engine derating.

Gear Box Z knew or should have known that these products were manufactured, offered for sale, or sold to bypass, defeat, or render inoperative elements of design that control emissions of regulated air pollutants, based upon the functions of Gear Box Z's products, Gear Box Z's advertisements regarding the products, and Gear Box Z's responses to the EPA's Information Request, as discussed further below.

Gear Box Z offered for sale and sold exhaust pipes that were manufactured by Advanced Flow Engineering, Inc. ("aFe") that do not incorporate exhaust aftertreatment emission control devices and are designed to bypass or remove the OEM exhaust systems containing, for example, DOC, DPF, NAC, and/or SCR systems. Many of these components were advertised by Gear Box Z as "delete" pipes. For example, Gear Box Z had an advertisement on its website www.gearboxz.com which stated:

AFE CAB & CHASSIS RACE EXHAUST FOR DODGE TRUCKS (AFEDPCC)

Exhaust for Dodge Trucks 2007.5-2010

aFe Cab & Chassis DPF Delete Race Exhaust (Stainless Steel). 16

In response to the EPA's Information Request, Gear Box Z admitted that the exhaust replacement pipes manufactured by aFe enable removal of DOC, DPF, and/or NAC.

Gear Box Z also manufactured and sold plates designed to bypass EGR systems ("EGR Block Plates"). Gear Box Z had an advertisement on its website www.gearboxz.com for the EGR Block Plates which stated:

Product Information:

The EGR Block Plates are designed to be fully reversible for trucks equipped with EGRs. This part number comes with 2 pieces. These plates require a programmer to work properly.

Features:

- · Can help Increase Fuel Economy
- · Can help Increase Performance
- · Decreases Soot loading in Intake
- Solves EGR Mechanical Issues
- · Easy Install
 - o No Drilling
 - o No Cutting
 - o No Welding

Includes:

- Top Block Plate
- Bottom Block Plate¹⁷

Gear Box Z's installation instructions for the EGR Block Plates demonstrate that the purpose of the EGR Block Plates is to block exhaust gas from recirculating, thereby disabling the EGR system. In response to the EPA's Information Request, Gear Box Z admitted that the EGR Block Plates are designed to bypass EGR systems.

Gear Box Z also manufactured and sold aftermarket ECM programmers (i.e., tuners) packaged with DPF emulators. The tuners and DPF emulators enable removal of DPFs without illuminating a MIL, prompting any DTCs, or causing engine derating. Gear Box Z had an advertisement on its website www.gearboxz.com for the tuner and DPF emulator which stated:

DODGE 3.0 (GBZ-DD30)

Product Information:

3.0 for Dodge Cummins 6.7L 2007.5-2012 trucks. The 3.0 is designed to be a fully reversible and temporary DPF maintenance for trucks equipped with DPF filters. This is the electronics only for use with a racing exhaust kit or maintenance pipe.

Webpage captured from https://gearboxx.com/collections/exhaust-systems/products/afedpec-afe-eab-ehassis-dpf-delete-race-exhaust-for-dodge-trucks (last visited November 28, 2017).

¹⁷ Webpage captured from https://gearhoxy.com/collections/ford/products/ghy-thp-ghz-dpd-r-ford-cyr-block-plates (last visited November 28, 2017).

Features:

- Emulates a perfectly clean filter facilitating a [sic] DPF maintenance.
- Clears DTCs
- Stacks with tuners and other programmers
- Fully reversible
- Easy Install
 - oNo Drilling
 - No Cutting
 - oNo Welding

Includes:

- Dodge 3.0 Electronics
 - o Module
 - o Emulator Harness
 - o Tempature [sic] Emulators¹⁸

In response to the EPA's Information Request, Gear Box Z admitted that the tuners and DPF emulators are designed to bypass DPF systems.

Furthermore, Gear Box Z knew or should have known that these products were offered for sale or installed on "motor vehicles" or "motor vehicle engines." Many products manufactured or sold by Gear Box Z were designed and marketed for use on specific makes and models of FCA, GM, or Ford motor vehicles or engines. FCA, GM, or Ford sought and obtained COCs from the EPA for these motor vehicles or engines. This certification unequivocally demonstrates that these vehicles and engines are "motor vehicles" and "motor vehicle engines" under the Act.

Enforcement

The EPA may bring an enforcement action for these violations under its administrative authority or by referring this matter to the United States Department of Justice with a recommendation that a civil complaint be filed in federal district court.²⁰ Persons violating Section 203(a)(3)(B) of the Act, 42 U.S.C. § 7522(a)(3)(B), are subject to an injunction under Section 204 of the Act, 42 U.S.C. § 7523, and a civil penalty of up to \$3,750 for each violation that occurred prior to November 2, 2015, and up to \$4,527 for each violation that occurred on or after November 2, 2015.²¹

¹⁸ Webpage captured from https://gearboxz.com/collections/dodge/products/gbz-dd30-gbz-dodge-3-0-electronics (last visited November 28, 2017).

¹⁹ Cummins engines were used in Dodge brand motor vehicles manufactured by FCA.

²⁰ CAA §§ 204, 205, 42 U.S.C. §§ 7523, 7524.

²¹ CAA § 205(a), 42 U.S.C. § 7524(a); 40 C.F.R. § 19.4.

The EPA is available to discuss this matter with you in further detail, upon your request. Please contact Ryan Bickmore, the EPA attorney assigned to this matter, within 14 days of receipt of this Notice of Violation. Mr. Bickmore can be reached at (415) 972-3058 or Bickmore.Ryan@epa.gov.

Sincerely,

Kamleen H. Johnson, Director

Enforcement Division

cc: Matthew I. Barlow
The Barlow Law Firm, LLC
HC 65 Box 537
3285 S. Hwy 389, #101
Fredonia, AZ 86022